MADHU
Recent Researches in Indian Archaeology and Art History

Shri M.N. Deshpande *Festschrift*

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SHRI M.N. DESHPANDE *FESTSCHRIFT*

Editor

Dr. M.S. Nagaraja Rao

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From the Editor's Pen

Shri Madhusudan Narhar Deshpande, a distinguished archaeologist, art historian and conservator, retired from service, as Director General of Archaeology in India, on 30.11.1978 after a spotless and distinguished career. Recently he has attained the age of Sixty. He has been known for his kindness to people, and has been rightly known in the *Survey* as '*Ajātaśatru*' and '*Dharmarāj*'. Shri Deshpande who was trained by Sir Mortimer Wheeler, has himself contributed to the field of Archaeology a band of devoted archaeologists. I was one of those fortunate students who was taught how to wield the spade by Shri Deshpande. It was, therefore, in the fitness of Indian tradition that a Committee headed by Shri Deshpande's close associate, Shri B.K. Thapar, decided to felicitate this scholar and humanist by presenting a volume containing scholarly articles on subjects very dear to Shri Deshpande.

The volume has fifty seven contributions on Prehistory and Protohistory, Historical Archaeology, Architecture, Sculptural Art, Numismatics and Conservation by eminent scholars in the field. But for their positive response, my task of seeing this volume through would not have been easy. I would like this opportunity to extend my heartfelt thanks to all the Contributors for their willing cooperation in this auspicious task. I have received valuable advice and guidance from the Felicitation Committee which I gratefully remember here. I will be failing in my duty, if I do not whole heartedly thank Shri Agam Prasad of M/S. Agam Kala Prakashan, but for whose willing involvement, I would not have been able to successfully complete this assignment. Nor can I forget the staff of M/S. Agam Kala Prakashan, Print India and Raj Press, Delhi in extending my thanks to all of them, for their diligent work. Dr. (Miss) Chhaya Bhattacharya has kindly helped me to see the matter through the press, I am extremely grateful to her.

I consider it an honour to have been asked to edit this volume of felicitations to Shri M.N. Deshpande, who taught me and many others not only to discover and appreciate our cultural heritage, but also many good things in life. I take this opportunity to offer on behalf of the Felicitation Committee and on my own behalf sincere greetings to Shri Deshpande and his family.

Mysore
Makara Sankranti
14.1.1981

M.S. NAGARAJA RAO



Shrimati and Shri M.N. Deshpande.



Shri M.N. Deshpande examining Sātavāhana terracottas in the collection of Shri Ramalingappa Lamture, at Ter.

Shri M.N. Deshpande—A Biographical sketch

M.K. DHAVALIKAR

Sir Mortimer Wheeler, during his four years' tenure as the Director General, Archaeological Survey of India, trained a whole generation of Indian Scholars who have since made valuable contributions in different branches of Archaeology. The senior most among them is Shri Madhusudan Narhar Deshpande, who has recently retired as the Director General of the Archaeological Survey of India. The present *Festschrift* is being offered to felicitate Shri M.N. Deshpande not only as a scholar but also as a humanist.

Born on 11th November 1920 at Rahimatpur, a village in the historically famous Satara district of Maharashtra, Shri Deshpande was educated in Poona. He graduated in 1942 with First Class Honours in Ardhamāgadhī from the Fergusson College which then came under the jurisdiction of the University of Bombay and was awarded the S.A.T. Jain Literature Scholarship. Later he began research under Professor H.D. Sankalia, the doyen among Indian archaeologists, at the Deccan College Post-Graduate Research Institute, Poona, on "The Cultural History of India based on Jaina Canonical Literature and Archaeology". But soon, in early 1944, he was selected for training in field archaeology by Sir Mortimer Wheeler in the School of Archaeology at Taxila. Wheeler grouped the trainees at Taxila in two batches, the senior ones headed by Shri Deshpande and the juniors by Shri B.K. Thapar, the present Director General of Archaeology in India. Shortly after the training in Taxila Shri Deshpande was selected as an Officer in the Archaeological Survey in 1946. He has served the Archaeological Survey with distinction starting as an Assistant Superintendent and retiring as the Director General in 1978.

The officers of the Survey are usually saddled with administration and Shri Deshpande was no exception to it; in fact, he was usually overburdened either by some additional charge at Calcutta where the Indian Museum was placed under direction and at Poona where he functioned single handed. He spent a considerable period of his time in Western India—at Poona, Baroda and Aurangabad and he could, therefore, specialize in the rock-cut architecture of Western India. His numerous papers on rock-cut temples bear ample testimony to his authority in this field. But, far more interesting is the manner in which he explained these monuments on the spot. I have witnessed several times how he took Presidents and Prime Ministers round Ajanta and Ellora; they would listen to him with rapt attention, brushing aside all protocol and security and spend hours in Shri Deshpande's company. He would explain the glories of Ajanta in such an enchanting style that Pandit Nehru once repeated his own words from *Discovery of India* that "Ajanta takes us back into a distant, dreamlike, yet a very real world".

Shri Deshpande's numerous visits to the cave temples were always rewarding. In the course of one such visit to Bhaja, he noticed the inscription on one of the wooden ribs in the ceiling of the main *chaitya*. His discoveries at Pitalkhora are too well known. I still have the vivid memories of our visit to Pitalkhora in the winter of 1957 when Shri Deshpande and myself went down the ravine in the evening. He noticed the staircase coming down from the forecourt of the main *vihāra*. As it was filled with debris, he instructed the staff to clear it. It was this clearance which led to the discovery of innumerable sculptures, including the famous *yakṣa*, inscriptions and crystal reliquaries as also to many new features of the main *chaitya* and the *vihāra*. These have been adequately dealt with by him in his longish paper in *Ancient India No. 14*.

I also remember our visit to Ter in 1961 where he was absorbed in the study of terracottas in the collections of Shri Ramalingappa Lamture. In them he noticed not only Roman influence so far as their technique of manufacture was concerned, but also some pieces of Roman origin. His paper on the

"Roman Influence on Satavahana Terracottas" was presented at the Congress International D'Archaeologie Classique held at Paris in 1965 where he also chaired the section on *Roman Orient.*

In the initial years, Shri Deshpande was trained in Pre-historic Archaeology by late Shri V.D. Krishnaswami and hence he later joined the Gujarat Pre-historic expedition led by Dr. H.D. Sankalia of the Deccan College, Poona in 1947-48. His own explorations led to the discovery of several chalcolithic sites in Maharashtra such as Nevasa, Bahal, Tekwada and others. Of these, he excavated Bahal and Tekwada first in 1952 and again later in 1957. His excavations at Daimabad in 1959 stretched back the antiquity of settled life in Maharashtra to the beginning of the second millenium B.C. The site proved to be of crucial importance and excavations have been resumed from 1973 under his guidance. His excavations at Tamluk in 1955 yielded a number of exquisite Gupta terracottas and those at Ambkheri in Punjab revealed a curious blend of Pre- and Late-Harappan elements.

Among the explorations carried out by Shri Deshpande, the most noteworthy is the expedition that he led in 1965 to the Lahoul-Spiti valley where he discovered a large number of murals in the Buddhist monasteries at Tabo. But what is more, they display unmistakable influence of Ajanta tradition and hence he rightly described them as the *'Himalayan Ajanta'*. He has discussed them at length in his "Buddhist Art of Ajanta and Tabo" which were delivered as *Sir Tashi Namgyal Memorial Lecturers.* They have been published by the Namgyal Institute of Tibetology as a special number of their *Bulletin of Tibetology* (Vol. V, No. 3) in 1973.

In the Archaeological Survey, Shri Deshpande's forte was conservation. The improved conditions of monuments in Western India owes not a little to him. The various experiments carried out at Ajanta for the better preservation of murals began under his stewardship. The fact that the conservation work done by the Survey at Ajanta after the monument came under their charge from the Nizam's government, has done a great deal of good to the paintings, has been clearly established by the publication of *Ajanta* (ed. by A. Ghosh, New Delhi). It was this experience of conservation of cave temples which stood him in good stead when India offered to repair the famous Buddhist grottos of Bamiyan in Afghanistan. The work has received world-wide acclaim, the lion's share of which goes to Shri Deshpande.

Shri Deshpande's tenure as the Director General of the Archaeological Survey of India is marked by a tremendous spurt in the activities of the Survey. He made vigorous efforts to check the smuggling of art objects out of the country culminated in enacting the Registration of Antiquities Act, 1972. This legislation more than doubled the work load of the Survey and consequently the staff increased as never before. The recovery of the Amin Pillars of the Kushan period and the settlement of the attain of Sivapuram Nataraja in Mr. Norton Simon's possession should be credited to Shri Deshpande's herculean efforts. Under a vigorous publication programme he brought out many numbers of *Indian Archaeology—A Review* which had heavily fallen in arrears. Although he has now retired from the Survey, he has not been allowed to retire from active life, for he has now been entrusted with the Directorship of the Architecture Project, at the Nehru Centre in Bombay, where he will give concrete shape to Pandit Nehru's *Discovery of India.*

In the true Wheelerian tradition, Shri Deshpande trained many young students of archaeology, who now occupy important positions in the country. To mention only a few, Dr. M.S. Nagaraja Rao, Director of Archaeology and Museums in Karnataka, Dr. A. Sundara, Reader in Karnatak University, Dharwar, Shri S.A. Sali of the Archaeological Survey and scores of others.

I doubt if anybody has ever seen Shri Deshpande excited even in critical moments which are not, few in the life of a person heading a government organization. This, he owes, to the teachings of his *guru*, Late Professor R.D. Ranade. Hence, we always find him unruffled and meeting everyone with a smile. This also reflects his attitude toward life and has endeared him to one and all. None who meets him, would fail to see the great humanist in him. He can, therefore, rightly be described as *Ajātaśatru* in the true sense of the term. Although he is now organizing the Nehru Centre in Bombay, he has decided to complete the work which he always wanted to do, that is, the study of the rock-cut caves of Western India. We pray God to bestow upon him and his family all the health and happiness so that he can complete his *magnum opus.*

Shri M.N. Deshpande's Literary Contributions

1. 'Kṛṣṇa Legend in the Jain Canonical Literature', *Jain Antiquery*, Vol. X, No. 1, 1945.
2. 'A brief account of recent archaeological explorations in Maharashtra'—A paper read at the 17th All-India Oriental Conference, 1953, Summary published in '*Summaries of Papers*', Ahmedabad, 1953.
3. 'Architecture and Sculpture', Special Number of *March of India*, on Western India, July-August, 1954.
4. 'Places of Buddhist Pilgrimage : Rock-cut Sanctuaries around Bombay, *The Indo-Asian Culture*, Vol. III, No. 1, July, 1954.
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16. 'Roman influence on the Terracottas of the Satavahana Period'—a paper read at the *International Conference* of Asian Archaeology—summary published in the proceedings, 1961.
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19. Presidential Address, Section I, at the *Silver Jubilee* Session (Poona) of the Indian History Congress, 1961.
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21. 'Classical Influence on Indian Terracotta Art', being a paper read at the Huitiems Congress International D' Archaeolgie Classique (Paris, 1963) and published in their report *Le Rayonnement des Civilisation Grecous at Romaine sur les cultures Periphinioues', 1965*, pp. 603-610.
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30. A paper on Roman Pottery read at the *Seminar on Ancient Indian Potteries*, organised by the University of Patna, April, 1968 and published in *Indian Potteries*, Ed. B.P. Sinha, Patna.
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BOOKS (Published)

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Catalogue of Illustrations

PLATES

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b. Shri M.N. Deshpande examining Sātavāhana terracottas in the Collection of Shri Ramalingappa Lamture, at Ter.

I VARSUS (*Dhule District, Maharashtra*)

a. Bichrome and Black-on-Red painted pottery of Late Harappan Period.
b. Shell bangle engraved with four Harappan symbols.
c. Terracotta head of Rhino.

II DAIMABAD BRONZES

a. Rhino on solid wheels.
b. Bull standing on a plate supported by solid wheels.
c. Elephant on a solid stand (wheels missing).
d. Charioteer or a hunter with a dog standing on a long pole and driving a humped bull with protruding horns.

III TADAKANAHALLI (*District Dharwar, Karnataka*)

Megalithic Excavations 1978

Grave—1

a. Stone Circle.
b. Skeletal Remains on a mud platform with pottery below.

IV TADAKANAHALLI

Grave—1

a. Pottery—after removal of skeletal Remains.
b. Iron implements.

V TADAKANAHALLI

Grave—2

a. Skeletal Remains with pottery.
b. Pottery after removing skeletal Remains.

VI TADAKANAHALLI

Gvave—2

a. Iron Axe.
b. Iron implements.

VII TADAKANAHALLI

Grave—3

a. General View of Grave 3.

b. Multi-spouted pot, other pots, stone implements and Skeletal Remains.
c. Urn-burial with pottery.
d. Close up of Urn-burial.

VIII TADAKANAHALLI

Grave—3
a. Multi-spouted pot.
b. Iron implements.
Grave—4
c. Pottery and skeletal remains.
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IX DAIMABAD (*Ahmednagar District—Maharashtra*)

a. General view of Kiln No. 1 (fore-ground) and Kiln No. 2 (in the Section).
b. Kiln No. 1 from West (mark the charred logs in the gravel filling).

X DAIMABAD

a. Bird's eye-view of Kiln No. 1.
b. Three views of the jar found on the north-east corner of Kiln No. 1.

XI DAIMABAD

Kiln No. 1
a. A pot with applique design.
b. A spouted vessel.
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XII DAIMABAD

Kiln No. 1
a. A painted jar.
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XIII HIMALAYAN REGION

a. Pebble tools from the eroded gravel at Srinagar.
b. Round pebbles with fluvio-glacial marks at Swit near Srinagar; Section at Swit showing a deposit inter-bedded with disturbed primary rock.
c. Section showing cultural deposits at Ranihat.
d. Circular fire place at Ranihat, Period II.

XIV HIMALAYAN REGION

a. Painted dagger in white—Rock painting at Kimni—District Chamoli.
b. Building Complex, in the excavations at Moradhvaja.
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b. Brick structure.
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XXVII GUJARAT TERRACOTTAS

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LVI EARLY CHALUKYA VAIṢṆAVA TEMPLE—BADAMI

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Abbreviations

ABORI	Annals of the Bhandarkar Oriental Research Institute, Pune.
AI	Ancient India (Bulletin of the Archaeological Survey of India).
APJA	Andhra Pradesh Journal of Archaeology.
ARADND	Annual Reports of the Archaeological Department in the Nizam's Dominions, Hyderabad.
ARIE	Annual Reports on Indian Epigraphy.
ARASI	Annual Reports of the Archaeological Survey of India.
ASWI	Archaeological Survey of Western India (Reports).
BADU	Bulletin of the Department of Anthropology, Dibrugarh University, Dibrugarh.
BDCRI	Bulletin of the Deccan College Research Institute, Pune.
BEFEO	Bulletin de L'ecole Francaise d'Extreme Orient.
BIA	Bulletin of the Institute of Archaeology, London.
BSOAS	Bulletin of the School of Oriental and African Studies.
EI	Epigraphia Indica.
IAR	Indian Archaeology—A Review.
IHQ	Indian Historical Quarterly.
IHR	Indian Historical Review.
IJHS	Indian Journal of History of Sciences.
Ind. Ant.	Indian Antiquary.
IPPA	Indian Prehistoric and Protohistoric Antiquities, Madras 1916.
JASB	Journal of the Asiatic Society of Bengal.
JAOS	Journal of the American Oriental Society.
JASS	Journal of Assam Science Society.
JBBRAS	Journal of the Bombay Branch of Royal Asiatic Society.
JBHS	Journal of the Bombay Historical Society.
JBORS	Journal of the Bihar and Orissa Research Society.
JESHO	Journal of the Economic and Social History of the Orient.
JGRS	Journal of Gujarat Research Society, Baroda.
JIH	Journal of Indian History.
JISOA	Journal of the Indian Society of Oriental Art.
JKU	Journal of the Karnatak University.
JMPIP	Journal of the Madhya Pradesh Itihasa Parishat.
JMSUB	Journal of the M.S. University, Baroda.
JNSI	Journal of the Numismatic Society of India.
JOI	Journal of Oriental Institute, Baroda.
JOR	Journal of Oriental Research, Madras.
JRAS	Journal of the Royal Asiatic Society of Great Britain and Ireland.
JRAI	Journal of the Royal Anthropological Institute, London.
JRSA	Journal of the Royal Society of Arts, London.
JUG	Journal of the University of Gauhati.
JUPHS	Journal of U.P. Historical Society.
JWAS	Journal of the Washington Academy of Sciences.
MAR	Mysore Archaeological Reports.
MASI	Memoirs of the Archaeological Survey of India.
PASB	Proceedings of the Asiatic Society of Bengal.
PISC	Proceedings of Indian Science Congress.
QJMS	Quarterly Journal of the Mythic Society.

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A. Prehistory and Protohistory



I

In Quest of Man : Anthropological Bias in Archaeology

K.V. SOUNDARARAJAN

THEORETICAL

Man's past is largely eked out by the Prehistoric remains which are studied on the lines of Anthropological approaches to cultural history.

Anthropology has three distinctive approaches :

1. The Physical—Cranial studies; ethnic conclusions are drawn.
2. Sociological—the behavioural and economic patterns are noted in the cultural archetypes.
3. The Tribal—where atavism is seen and sources of their cultural ingredients identified.

Archaeology deals with evidence of material remains of man and often is not in a position, in the absence of written records, to assess the actual socio-cultural forces at work. Unless skeletons are available, no measure of the groups of racial affinities can be conjectured.

While Prehistoric studies and Tribal studies, at the two ends of the spectrum, are largely influenced by Anthropological—sociological affinities alone, the Protohistoric and early historic archaeology forming the central part of human cultural stream is, in the main, analysed by archaeological field techniques.

Childe[1] said "The function of archaeology lies, I believe, in the historical rather than the naturalistic discipline". It is a source of history rather than of generalisations claiming the dignity of natural laws. No doubt, the archaeologist is pre-disposed to a sort of materialism. A Prehistorian may legitimately excuse his foredoomed failure to recapture "thoughts and motives of his agents" by the plea that they do not matter; it is the result actually achieved that reveal the 'objective will' directing the action and that have to be judged and justified. But every historian is really in the same plight or worse, for he may be taken in by the false and distorted imputations of the agents, their friends or their enemies. The economic, sociological and ultimately historical interpretation of data has, I believe, now become the main task that can contribute enormously to human history and should enhance the status of archaeology.

Wherever we are dealing with a primitive culture in the Protohistoric period, there are several issues that crop up and queries that we have to ask ourselves :

(*i*) What did they live on (study of food refuse) ? This problem cannot be solved by archaeology, not even by excavation, but only by a zoological and botanical study.

(*ii*) In what environment was the community living ? (Effective environment is what was known and exploited by the tools and applied skills known to them).

(*iii*) How was land exploited and what sort of population density is to be reckoned with ?

(*iv*) Sociological inferences *i.e.*, division of the finished product is an integral moment in the economy.

(*v*) Distinction between rich and poor in cemeteries. If these are juxtaposed indiscriminately, it might be a pre 'class' society, as surely as a distinction between artisans, merchants and ruler's quarters at Harappa illustrate *class division*.

(*vi*) Behaviourist position has to be adopted by archaeology.

All these are essential determinants of Anthropology and argue for an anthropological bias in archaeological studies.

MODELS

The nomenclature of archaeological stages, again, is essentially drawn from the sister science of anthropology and sociology. The linguistic branch is, again, able to provide pockets of enthno-linguistic vestiges which might be amenable for integration with archaeological data for identifying, where possible, the communities which had been viable in these regions in the earlier periods.

The conceptual models that have to be created for dealing with archaeological evidence have to be largely technological, evolutionary and economic. For non-literate societies, who had progressed beyond the hunting, Palaeolithic stage of economy, and when, further, these non-literate societies live side by side with ancient civilizations, archaeological evidence is all that is available for informing us of their very existence, besides their details.

The sources for 'early man' are :

1. Fossils derived from burial pits;
2. Cranial bones found in rock deposits;
3. Archaeological excavation of tools, pottery etc.
4. Study of living primitives.

(1) and (2) belong to the realm of palaeontology and their interpretation will be at the hands of anthropology. The last mentioned is, again, under cultural anthropology. Hence, it is not only inevitable that there should be close co-ordination between anthropology and archaeology, but also that the developed discipline of archaeology is best suited to the main Protohistoric (or preliterate and literate) and subsequent chalcolithic and iron age cultures, which leave man as a sophisticated town-bred connoisseur of all the artefacts and of advanced state-craft, of rationalished political relationship with the neighbours, near and distant and the arbitor of zonal economies, by the exploitation and monopoly of strategic or utilitarian raw materials.

Primitive man displayed a wide pattern of behaviour and adaptability, but we know little about the details. Man must have lived in small communities in the earlier stages, based on the need for cooperation to hunt, probably under some kind of leader. Cave paintings indicate early man believed that magic pictures of animals could conjure up real ones and help in success in the hunt, and early figurines seem to be fertility mascots. Formal burials indicate belief in after life. Well developed religious ideas appear in the earliest cultures yet known and some of the cave paintings display marked sense of aesthetic sensibilities.

Fire and weapons were used early. A steady progression of the tools, like hatchets, awls, needles, cutting tools etc., are seen. From the Neolithic age (*c.* 8000 B.C.—4000 B.C., universally speaking) polished tools, domestication of animals, farming or subsistence agriculture and wheel were all discovered. At the end of the Neolithic, pottery and textiles were invented and soon the exploitation of metals like gold, silver and copper began. The bronze age was indeed the time of the first civilization of man, and the Iron Age followed rapidly in the early 2nd millenium B.C.

By 4000 B.C., thus, men had started living in villages, had farm and amimals, grew grains, sailed in boats and had archaic religions. This took place in the river valleys : Nile (Egypt), Tigris-Euphrates (Mesopotamia), Indus (India) and Huang Ho (China). This was because the gradual desiccation of large areas after last retreat of glaciers, forced men to seek shelter further south. In the river valley, man had to organise well to accomplish difficult community work. Civilization arose as balance between pressures of outsiders trying to enter an area, and attempts of those within to conquer each other and cause re-arrangement. The ideas of monarchy and religion were combined to produce a king who was also typified as a priest (or godman) who ruled with an aristocratic council. People performed hard work to pay to king surplus that supported specialists (priests, warriors, administrators etc.). Payment was voluntary, for people believed State was itself a manifestation of god. Social specialisation led to

social mobility first and then on the class variation, and in India, seemingly led, further, to caste consolidations.

Elements of material culture represented in the ancestral common tongues of linguistically affiliated language groups, such as the Indo-European etc., have been sources of significant study, not only for the linguists but also archaeologists to coordinate their techniques, in solving the common problems of cultural ancestry. But often one runs into blind alleys in such studies, as for instance, the pattern of common word-forms for Iron, as compared with the pattern for copper and bronze; or the case of horse, or the individual parts of wheeled traction like wheel, hub, spokes etc., though existing in common words, do not show commonness for the finished product, namely, the chariot or cart; or in a similar manner, regarding environmental factors, in the Indo-European, which yield common words for 'birch tree' or large 'river fish' but not for 'sea'. The problem indeed of the original homeland of the Indo-European languaeg-families has not been settled yet and the entire formative and developing stages of material cultures of such linguistic, cultural and social entities like the Dravidians and the Aryans, are seemingly closely linked with this problem and would defy identification and analysis for a foreseeable future, unless either a bilingual Indus script record or clinching anthropological skeletal remains are brought forth. But controlling factors like chronology, geography, types of material cultures etc., would articulate the dimensions of the problems and introduce stratification, sooner or later, in the archaeological cultures and the linguistic stems also, yielding favourable results. Tribal languages have been the most sought after for discovering affinities and parentage of defunct as well as live stages of language communication; and the problem of directly correlating language with material culture, in the pre-literature societies of the protohistoric times (around 3rd-4th millennium B.C.)—which was indeed the watershed period—is thus a challenging task. Collaboration between the ethno-linguist and the archaeologist will continue to hold out promise. For example, the draught-animal like the horse which was necessarily the original denizen of the Steppe lands and was a comparatively later introduction in the orient and West Asia, is independent of wheeled carts which are archaeologically traceable well into the 3rd millennium B.C., but has much to do with the war chariots which developed around the mid 2nd millennium B.C., perhaps for the first time. The original home of the Indo-European, those of early metal-using cultures, and the ancestors of the Sanskrit-speaking communities who meant so much to the life and faith of Indian in the past, will all be fascinating problems, in the realm of a coordinated endeavour between protohistoric archaeologists and the ethno-linguistic branches of anthropology.

INDIAN PATTERN IN PROTOHISTORY AND HISTORY

NEOLITHIC

Neolithic India displays no unitary ecology nor any single nucleating zone. Its dispersal also appears to be heterogeneous. It also evinces peripheral trickling of Central Chinese strains on the Northern side and of South Asian trends on the eastern side. The insular Neolithic cultures to the south, however, have the ingredients of a *chthonic* group. The incipient stages of the Indian Neolithic are not yet clearly spelled out. Culturally, it was a period of progression and finite orientation.

(*a*) Chalcolithic India, at least in its spectacular base in the Harappan culture, indicated a mingling of more than one ethnic group, by way of its cranial remains. Its overland and coastal trade was, though indirect and only with West Asia, vigorous.

(*b*) However, in its later stages, it lapses into semi-urban or mostly rural pattern in most other regions, especially subsequent to the Central Harappan date. Some of its other features are development of burial varieties and cults; ceramic diversity, mostly in painted designs and in techniques. Copper was largely in short supply, speaking for the entire areas involved. Some affinities with Iranian elements are ascribed to some of its pottery shapes and painted traditions and cranial data. Trade in the accepted sense had not been much in evidence. It was, culturally, a *period of recession.*

IRON AGE

The most significant period for the rejuvenation of urban trends and urges—of social consolidation. It was rich in ore resources. Considerable variegation of its matrix and cultural expansion on an all India basis and ethnic fusions materialised as a sequel, and coincided with the Epic traditions of India—a truly revolutionary stage displacing Neolithic atavism in the south, chalcolithic stagnation in upper Deccan and Central India, and streamlining the post-Harappan, rootless 'melonge' of cultures, in the Ganga valley, into one of *consistent urbanisation, economic consolidation* and *political awakening.*

EARLY HISTORIC

The melting pot of traditions, clannish grouping and political maturity, born out of exotic onslaughts on Indian culture and *in the Indian soil,* of craft regeneration, ethnic miscogenation and cosmopolitanism—the water-shed period of organised Indian religions and iconography.

In terms of anthropo-archaeological summation, the development of the cultural history of Indian's past could be tabulated, as in the following chart :

Sl. No.	Archl. stage	Cultural stage	Region	Site (with State)	Fa flora etc.	Age
1	2	3	4	5	6	7
I.	Prehistory	The Great Hand axe and core cultures	Madrasian Lower Deccan	Attrampakkam Vadamadurai Giddalur (Andhra) Khyad (Karnataka) Sabarmati (Gujarat)		Mid Late Pleistocene *C.* 3000,000
		Pebble tool cultures	H.P.	Narmada (Madhya Pradesh) Guler (Himachal Pradesh) Nalagarh (Punjab)		*C.* 18000 B.C.
		Flake blade cultures	Deccan	Nevasa (Maharashtra) Mirzapur (U.P.) Nagarjunakonda (Andhra Pradesh)		
		Bone cultures	Lower Deccan			
		Mircolithic cultures	Vindhya Southern Teri sites (dune) (Tamil Nadu) Langhnaj (Gujarat)	Pachmarhi (M.P.) Sauyerpuram		Recent 10000-5000 B.C.
II.	*Protohistory* both bronze Age and Chalcolithic	Microlith of Foraging stage urban chalcolithic facies.	Western & N.W. India Harappan Central Indian Kashmir Ganga valley (Neolithic)	Kalibangan (Rajasthan) Lothal (Gujarat) Mahesvar (M.P.) Burzahom (Kashmir) Chirand (Bihar) N'konda (Andhra)		3000 B.C. to 1500 B.C.

Contd.

1	2	3	4	5	6	7
III.	Iron Age	Early	North	Sonapur (Bihar)		*C.* 1200-750
			West	Kaundinpur (Maharashtra)		B.C.
			South	Attranjikhera (U.P.)		
			East	Nagal (Gujarat)		
		Later	NEWS	Takalghat (Maharashtra)		
		Megalithic	N-E-SW	Khapa (Maharashtra)		
		Era		Zonal sites		
				(cist dolmen, pit		
				circles menhir		
				and urn burials)		
IV.	Early	Urban-	River- wise			*C.* 750 B.C.
	Historic	economy	valley			to
		Exotic strains		Achaemened-		*C.* A.D. 200
				Graeco-Roman		
				(Kushan)		

(Historic periods of conformity that follow in social, political and cultural institutions with profuse utilisation of writing for public purposes are beyond the scope of archaeological investigations).

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II

Arsenical Coppers in the Indian Bronze Age

D.P. AGRAWAL, R.V. KRISHNAMURTHY
AND SHEELA KUSUMGAR

INTRODUCTION

We delineate here the alloying patterns in the Indian Bronze Age cultures based both on our analyses and the previous work. The significance of alloying is explained by way of introduction.

Copper has to be alloyed for better casting, hardness and tensile strength. Tin and arsenic have commonly been used in antiquity both as deoxidising agents for improved casting and for greater hardness. If pure copper is cast, it has a tendency to 'gas' which results in porous casting. Hardness of copper of course can be increased by hammering along from 87 to 133 (Brinell hardness numbers), but it makes the edge brittle. As arsenic (upto 4%) and tin (upto 8%) in copper form solid solutions, the latter have greater hardness than the individual metals they are composed of. Prolonged annealing allows even upto 16% of tin to form a solid solution with copper. Though the exact extent of optimal alloying is still a debated issue, arsenic between 1-5% and tin between 5-12% is generally regarded as the alloying limits for achieving optimal casting properties as well as hardness and ductility. Lead, on the other hand, imparts better fusibility in casting process.

We may point out here that for quite some time it was thought that arsenical alloying was of inferior quality and therefore of low occurrence. Recent studies have, however, shown that "a useful level of arsenic (1.5%) was, far more widespread, and from certain areas (Syria, N.W. Iran, Cyclades and mainland Greece) arsenical copper, as defined, was used for two-thirds of all objects analysed".[1] Similarly, use of arsenical copper was very common in Iran in the fourth millennium B.C., no doubt facilitated by the occurrence of copper-arsenic minerals (algodonite ($Cu_5.As$) and $Cu_3.As$ (domeykite)) in the Tulamessi mines.

INDIAN DATA

We include here three main groups of cultures under the Bronze Age :

(1) Indus Civilization,

(2) Chalcolithic Cultures,

(3) Copper Hoard Culture.

The Indus Civilization located in Punjab, Rajasthan, Gujarat and Pakistan had a timespread of *c*. 2400-1700 B.C. The Chalcolithic Cultures comprise the Banas Culture of Rajasthan (*c*. 2000-1400 B.C.), the Kayatha Culture of M.P. (*c*. 2000-1800 B.C.), the Malva Culture of M.P. (*c*. 1700-1400 B.C.), and the Jorwe Culture of Maharashtra (*c*. 1400-900 B.C.).[2]

In the course of our metallurgical studies we have carried out metallographic, emission spectroscopic and atomic absorption analysis of copper base artifacts from the above cultures.[3] We have also C^{14} dated a number of ancient copper[4] and gold workings.[5] These studies have been carried out both to

study ore-artifact correlation and alloying patterns. We confine ourselves here to the alloying studies only.

Table 1 gives the percentage of arsenic, tin and lead in the Harappan artifacts; Table 2 in the Chalcolithic artifacts; and Table 3 in the Copper Hoard objects. For delineating the overall alloying patterns (Table 4) we have also made use of earlier analyses on the Harappan objects carried out by previous workers as referred to in Agrawal.[6] Tables 1 to 3, however, give atomic absorption analysis carried out exclusively by us. Figure 1 gives the histograms of the alloying patterns based on 219 Harappan, 29 Chalcolithic and 33 Copper Hoard artifacts (Table 4). Only greater than 1% As or Sn has been taken as an evidence of deliberate alloying here.

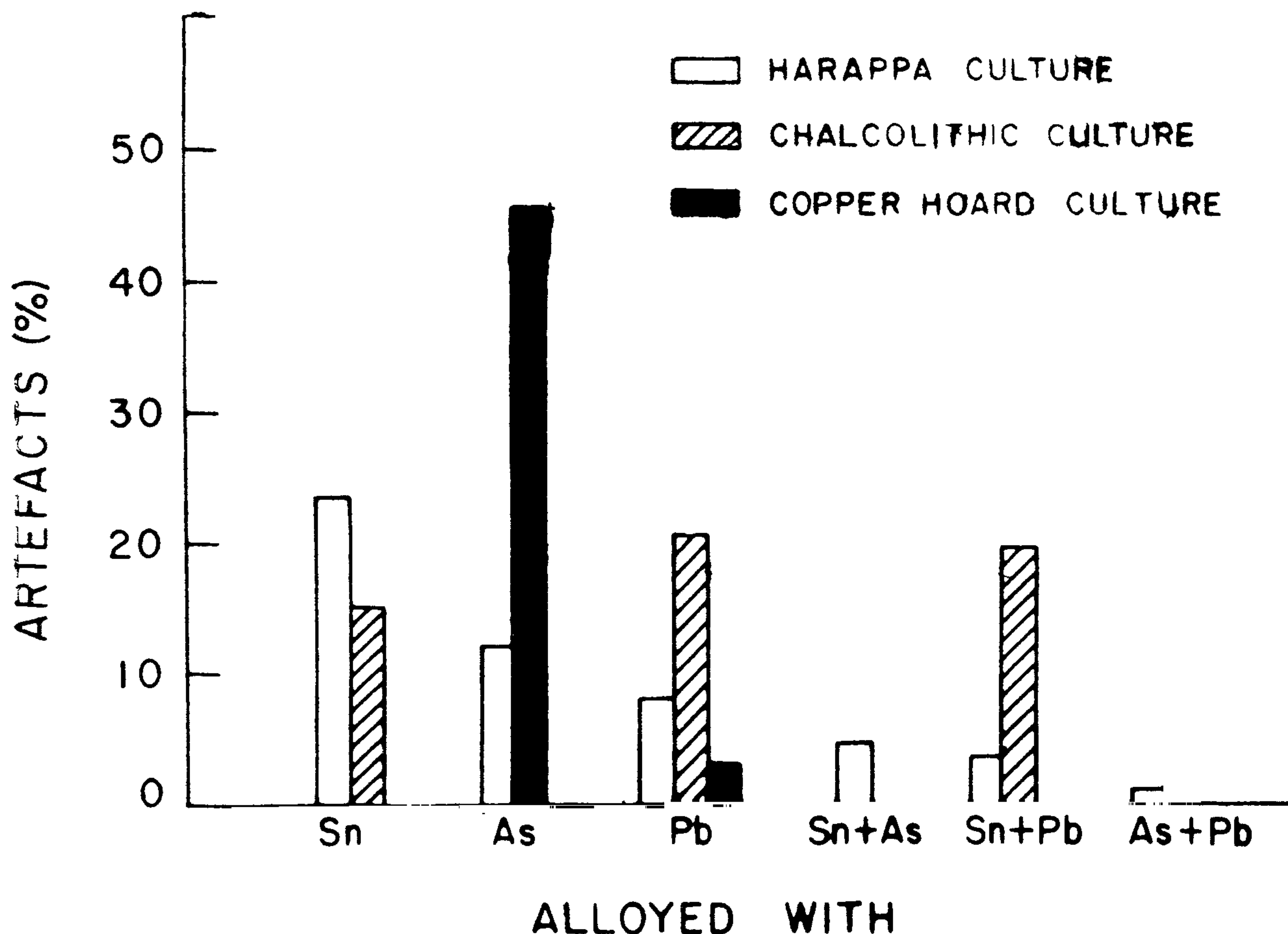


Fig. 1. Histogram showing percentage of artifacts alloyed with tin, lead and arsenic. The Harappan and the chalcolithic culture show a dissimilar alloying pattern.

Figure 1 shows that tin alloying was resorted to only by the Harappans and the Chalcolithic people; the copper hoards people never used any tin alloying whatsoever. On the other hand, arsenical alloying is most significant in the Copper Hoards, but entirely absent in the Chalcolithic group. Only a small percentage of the Harappan coppers are arsenical. Lead is quite dominant in the Chalcolithic group, followed by the Harappan. The Copper Hoards artifacts using lead alloys are very low in percentage (Table 4).

DISCUSSION

Though we are further analysing a larger number of samples, yet the available data show an unmistakable alloying pattern, as explained above.

TABLE 1

Percentage elemental composition of the Harappan copper artifacts, determined by atomic absorption spectrophotometry

Key : N.P. = Not Present

Sample No.	*Site*	*Description*	*As*	*Pb*	*Sn*
1	2	3	4	5	6
P—3	Surkotada	Copper fragment	—	0.08	0.27
P—16	,,	,, ,,	—	3.92	3.47
P—18	,,	,, ,,	—	0.58	0.42
P—19	,,	,, ,,	0.51	0.97	1.26
P—20	,,	,, ,,	—	0.68	0.49
P—21	,,	,, ,,	1.29	0.16	7.47
P—22	,,	,, ,,	1.07	0.29	—
P—23	,,	,, ,,	1.31	0.16	—
P—24	,,	,, ,,	1.87	0.48	—
P—25	,,	,, ,,	—	1.12	—
P—26	,,	,, ,,	0.73	0.35	0.05
P—27	,,	,, ,,	0.07	0.60	2.14
P—28	,,	,, ,,	0.28	3.73	0.56
P—29	,,	,, ,,	0.27	1.85	0.46
P—31	,,	,, ,,	0.82	—	0.36
P—32	,,	,, ,,	1.62	—	0.54
P—33	,,	,, ,,	1.19	0.26	0.51
P—34	,,	,, ,,	0.87	0.48	0.58
P—35	,,	,, ,,	1.87	1.04	0.16
P—36	,,	,, ,,	0.46	—	0.10
P—37	,,	,, ,,	0.40	—	0.16
P—38	,,	,, ,,	—	20.23	—
P—39	,,	,, ,,	—	2.33	5.45
P—40	,,	,, ,,	—	0.65	4.26
P—41	,,	,, ,,	—	3.70	2.96
P—42	,,	,, ,,	0.81	0.22	4.68
P—43	,,	,, ,,	0.12	0.25	2.09
P—44	,,	,, ,,	—	—	—
P—45	,,	,, ,,	0.48	0.95	—
P—46	,,	,, ,,	—	6.32	0.26
P—47	,,	,, ,,	0.13	—	—
P—2	,,	Copper piece	0.153	16.090	8.08
P—5	,,	,, ,,	0.120	16.45	2.46
P—14	,,	,, ,,	0.495	1.081	—
P—15	,,	,, ,,	1.000	N.P.	—
P—30	,,	Copper axe	0.99	0.93	0.12
P—48	,,	Dish fragment	—	—	—
P—6	,,	Copper ring	1.491	1.3326	N.P.
P—8	,,	Copper bangle	0.113	13.25	4.30
P—9	,,	Copper point	0.587	1.253	—

Contd.

TABLE 1 (*contd.*)

1	2	3	4	5	6
P—50	Chanhudaro	Copper fragment	1.13	N.P.	—
P—111	,,	,, ,,	—	—	0.39
P—112	,,	,, ,,	2.74	—	—
P—114	,,	,, ,,	0.87	—	—
P—176	,,	,, ,,	0.56	0.28	1.56
P—182	,,	,, ,,	2.88	0.22	—
P—83	,,	,, ,,	—	—	0.54
P—84	,,	,, ,,	0.35	—	3.64
P—85	,,	,, ,,	0.12	0.05	2.82
P—117	,,	,, ,,	0.07	—	—
P—119	,,	,, ,,	0.43	—	—
P—120	,,	,, ,,	1.27	0.28	0.55
P—122	,,	,, ,,	3.24	—	0.38
P—124	,,	,, ,,	—	—	—
P—125	,,	,, ,,	0.33	—	0.03
P—126	,,	,, ,,	—	—	9.92
P—127	,,	,, ,,	1.77	—	1.42
P—128	,,	,, ,,	0.04	—	—
P—129	,,	,, ,,	0.22	—	10.74
P—180	,,	,, ,,	0.46	0.19	—
P—78	,,	Chisel	1.34	—	—
P—79	,,	,,	0.30	—	7.17
P—80	,,	Bangle	0.09	—	0.005
P—81	,,	Dish fragment	0.89	0.90	0.74
P—82	,,	Spearhead tip	0.66	16.57	0.22
P—177	,,	Broken celt	1.81	0.26	—
P—88	,,	Spearhead fragment	—	0.12	—
P—92	Kalibangan	Copper piece	—	—	2.21
P—93	,,	,, ,,	0.66	—	0.08
P—94	,,	,, ,,	0.10	—	0.10
P—95	,,	,, ,,	0.74	0.74	3.48
P—89	,,	Copper fragment	1.22	0.85	0.31
P—90	,,	Copper ring piece	—	—	2.18
P—91	,,	Bangle fragment	1.37	4.12	0.20
P—96	,,	Copper bead	0.24	1.00	0.04
P—104	Harappa	Copper fragment	1.00	0.37	0.10
P—105	,,	,, ,,	0.44	1.75	0.03
P—113	,,	,, ,,	0.36	2.91	5.80
P—72	,,	Copper bead	0.18	0.41	0.85
P—73	,,	,, ,,	—	—	1.84
P—100	,,	,, ,,	—	3.78	0.20
P—101	,,	,, ,,	—	2.8	0.07
P—102	,,	,, ,,	1.3	0.67	0.07
P—103	,,	,, ,,	0.13	0.94	0.05

TABLE 2

Percentage elemental composition of the Chalcolithic artifacts

Key : N.A.=Not analysed

Sample No.	*Site*	*Description*	*As*	*Pb*	*Sn*
P—62	Chirand	Copper fragment	0.14	1.26	7.53
P—64	Sonpur	,, ,,	—	—	2.35
P—149	Prakash	Lid with a ring	0.48	7.36	—
P—151	,,	,, ,,	—	1.07	—
P—153	,,	Bell	0.52	3.34	12.53
P—154	,,	Bangle fragment	0.40	1.59	6.21
P—206	Daimabad excavation	Bangle	N.A.	0.44	—
P—207	,,	,,	N.A.	—	—
P—208	,,	,,	N.A.	—	—
P—209	,,	,,	N.A.	—	0.02
	Jorwe	Copper axe	—	—	1.78
	,,	Copper bangle	—	—	—
CDL—105	Chandoli	Spearhead	—	1.55	—
CDL—30	,,	Axe	—	1.68	—
6721	Nevasa	Chisel	—	0.61	2.72
6722	,,	Bangle	—	—	—
6723	,,	Copper head	—	—	—
1385	Navdatoli	Bangle	—	2.28	4.37
	,,	Axe	—	2.28	3.26
	,,	Chisel	—	2.06	3.12
	Somnath	Axe	—	1.21	12.82
A2325	Ahar	Metal	—	1.64	—
	,,	Axe	—	1.62	—

TABLE 3

Percentage elemental composition of the Copper Hoard artifacts, determined by atomic absorption spectrophotometry

Key : N.P.=Not Present

Sample No.	*Site*	*Description*	*Sn*	*As*	*Pb*
P—53	Hami	Copper celt	N.P.	1.351	N.P.
P—54	,,	,, ,,	N.P.	7.844	1.78
P—60	,,	Axe	N.P.	0.572	3.510
P—55	Dhanbad	Copper axe	N.P.	4.623	N.P.
P—76	Bahadurbad	Copper bangle	N.P.	0.575	N.P.
P—77	,,	,, ,,	N.P.	0.285	N.P.
P—155	Khera Manpur	Celt	N.P.	1.165	0.05
P—156	Hardi	,,	N.P.	0.285	0.01
P—157	Maghadpur	,,	N.P.	0.468	0.006
P—158	Sitapur	,,	N.P.	0.289	0.012
P—159	Bithur	,,	N.P.	1.578	0.427
P—160	Sarthauli	,,	N.P.	0.434	0.024
P—161	Sheorajpur	Anthropomorph	N.P.	0.796	0.005
P—162	Rajpur	Harpoon	N.P.	1.52	0.912
P—163	Narsipur	Celt	N.P.	0.891	0.010
P—164	,,	,,	N.P.	0.219	0.004
P—165	,,	,,	N.P.	1.34	0.013
P—167	,,	,,	N.P.	1.235	0.022
P—166	,,	Spearhead	N.P.	1.069	0.022
P—168	,,	,,	N.P.	2.008	0.029
P—169	,,	Harpoon	N.P.	2.062	0.015
P—170	,,	Chisel	N.P.	1.866	0.004
P—171	,,	,,	N.P.	3.315	0.674
P—193	Sadabad	Celt	N.P.	0.702	0.217
P—194	,,	,,	N.P.	0.389	0.052
P—195	,,	Scrubbing	N.P.	1.322	0.291
P—196	,,	Outer surface scrubbing	N.P.	1.511	0.063
P—197	Shahabad	Sword	N.P.	2.457	2.432
P—198	,,	Celt	N.P.	0.506	0.018
P—199	,,	,,	N.P.	0.623	0.018
P—200	,,	,,	N.P.	0.965	0.177
P—201	,,	,,	N.P.	4.053	0.128
P—202	,,	Fragment	N.P.	0.136	0.012

TABLE 4

Alloying pattern of the Harappan and Copper Hoard artifacts. The Harappan samples include analysis by earlier Workers also (*See* Fig. 1).

Culture	*Total No. of artifacts*	*No. of Sn bearing artifacts*	*% of Sn bearing artifacts*	*No. of As bearing artifacts*	*% of As bearing artifacts*	*No. of Pb bearing artifacts*	*% of Pb bearing artifacts*
1	2	3	4	5	6	7	8
Harappan	219	50	22 83	26	11.87	17	7.76
Chalcolithic	29	5	17.24	0	0	6	20.6
Copper Hoard	33	0	0	15	45.45	1	3.0

TABLE 4 (*Contd.*)

Culture	*Total No. of artifacts*	*No. of Sn+ As bearing artifacts*	*% of Sn+ As bearing artifacts*	*No. of Sn+ Pb bearing artifacts*	*% of Sn+ Pb bearing artifacts*	*No. of As+ Pb bearing artifacts*	*% of As+ Pb bearing artifacts*
		9	10	11	12	13	14
Harappan	219	9	4.11	14	6.4	3	1.4
Chalcolithic	29	0	0	5	17.24	0	0
Copper Hoard	33	0	0	0	0	2	6.0

It is significant to note that in Iran, especially in Tepe Yahya[7] in the fourth millennium B.C.. only arsenical alloying was used. Even in other West Asian regions, arsenic alloying precedes tin alloying.[8] In Iran, tin alloying makes a beginning only in the third millennium B.C. In Afghanistan and the Indian sub-continent also it appears in the third millennium B.C. The Indus and the Chalcolithic tin alloying thus fits in this chronological perspective of West Asia.

But the arsenical coppers of the Copper Hoards are more difficult to explain. It is obvious that it is a different metallurgical tradition than that of the Harappans or the Chalcolithic Cultures—it is proved both by typological considerations[9], and by the alloying pattern as delineated above. As elsewhere, does arsenical alloying represent an earlier metallurgical tradition than even the Harappans ? In the absence of any direct dates on the Copper Hoard sites, it is difficult to decide. Was use of arsenic influenced by the availability of arsenic-copper ores, as it happened in Iran ? The available data on the Indian copper minerals does not show any ores comparable to domeykite ($Cu_3.As$) or algodonite ($Cu_5.As$) of Iran. The main Indian minerals are :[10]

Chalcopyrite	$Cu_2SFe_2S_3$
Chalcocite	Cu_2S
Bornite	Cu_3FeSO_4
Tetrahedrite	$4Cu_2S\ Sb_2S_3$
Covellite	CuS
Malachite	$CuCO_3.Cu(OH)_2$
Azurite	$CuCO_3.Cu(OH)_2$

But none of these minerals are arsenic bearing. Only from Nal lollingite ($FeAs_2$) has been reported which could have been used for arsenic alloying in Western India.

Arsenic is of rare occurrence in India. Some ancient mines of orpiment and realger (sulphides of arsenic) are known from Chitral mountains at more than 10,000 feet height. Some scattered fragments of these sulphide minerals are also found from the Shankalpa Glacier in the Kumaon Himalayas. The inaccessibility of these sources rules out their use by the Bronze Age cultures. The iron arsenides (lollingite and leucopyrite) of Hazaribagh district in Bihar, could possibly be a source but they are of very poor quality and considered uneconomic today.[11] We are thus at a loss to trace the source of arsenic used by the Copper Hoards.

CONCLUSION

The available data on the alloying patterns of the Copper Hoards, the Harappan and the Chalcolithic cultures show that the Copper Hoards have a technologically distinct tradition. If, as in West Asia, arsenical alloying in India precedes tin alloying, the Copper Hoard Culture may have an earlier beginning. Thus the alloying patterns endow the Copper Hoards culture with both uniqueness and probable precedence in time with the corresponding archaeological implications.

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III
VARSUS : Latest Harappan post in Dhule District, Maharashtra

S.N. Raghunath

Till recently it was not certain whether the Harappans, who inhabited the Indus Valley and Gujarat (Lothal, Rangpur) between 2500 B.C. to 1700 B.C. had entered Maharashtra. Bhagatrav, on the

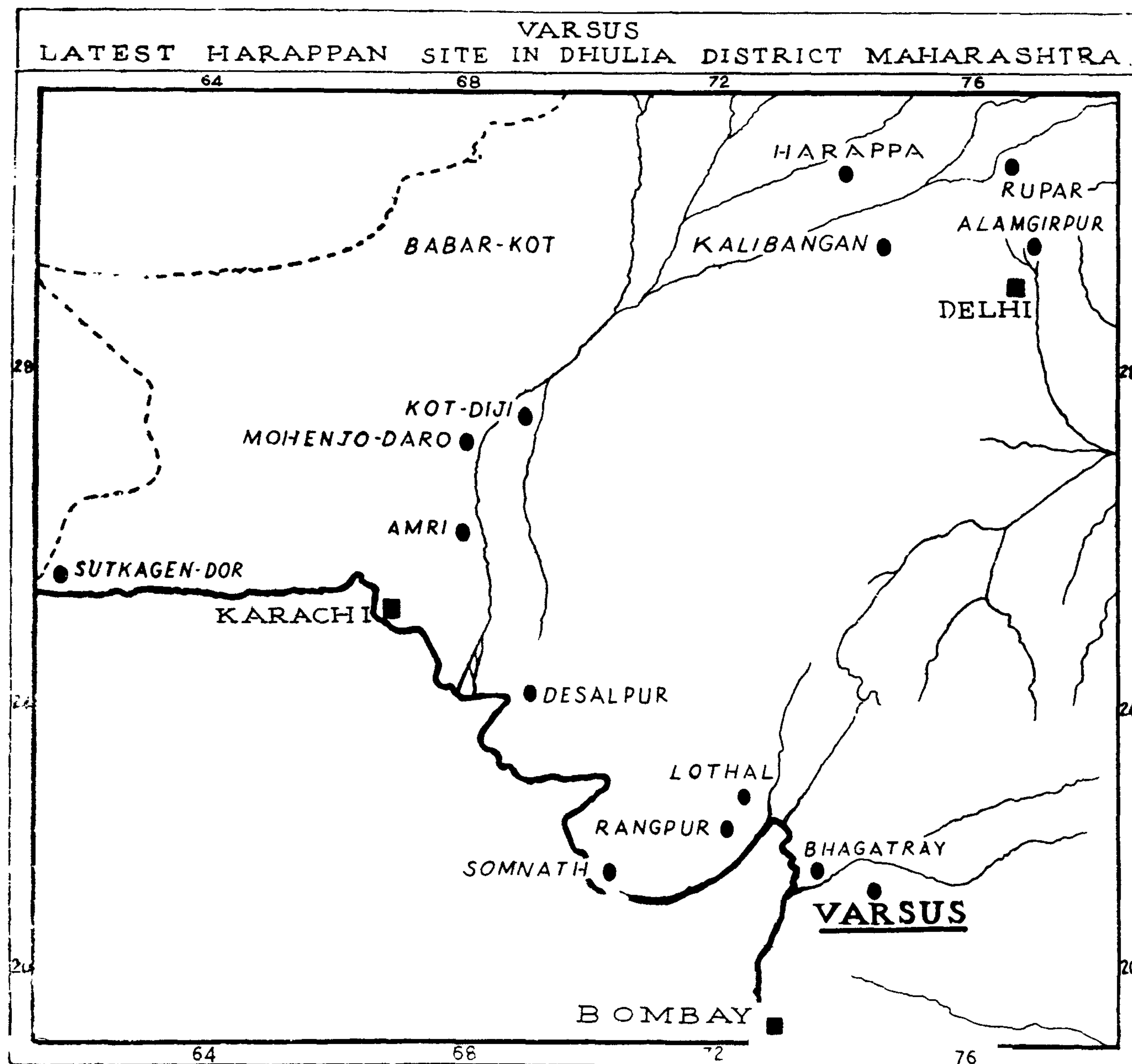


Fig. 2. Map showing the location of *Varsus*, latest Harappan Site in Dhulia District.

Narmada, in Broach District, Gujarat, was the last known Southern post of the Harappans. However, earlier explorations in the Tapti Valley had given certain sites like Kaothe which yielded on surface, Black-on-Red painted pottery faintly affiliated to Late Harrappan Pottery. found in the Late Harappan sites of Gujarat. In this context, the discovery of the site of *Varsus* in the district of Dhule assumes importance and provides a base to the Late Harappan sequence found in Daimabad, on Pravara, in Ahmednagar district. *Varsus* (N. long 75°10′ E. lat. 21°15′) is located in Sindhkhed Taluk, Dhule District, on river Burai which is a tributary to River Tapti. (see Fig. 2).

The surface finds include : (*a*) thick Black-on-Red and Chocolate-on-Buff painted pottery and sturdy fabric, giving a metallic ring. The painted designs like loops, net and horizontal bands on the pottery are typical Late Harappan designs (Pl. Ia); (*b*) Black-and-Red Ware. thick and thin, with lustrous surface as found in Rangpur II B and II C; (*c*) Parallel-sided Chert blades; (*d*) Terracotta bull; (*e*) a unique conch shell bangle piece with engravings of 4 Harappan scripts (Pl. Ib); and (*f*) another typical find of a terracotta Head Mask of a Rhino (Pl. Ic). Applique eye design seen here is similar in technique as of the specimen from Mohenjo-Daro.

Further exploration on the upstream of River Burai, has brought to light 4 more Late Harappan Sites at *Umbarballi*, *Vadode*, *Walkheda* and *Sindhkhed*. The interesting feature noted from surface collection is that while Late Harappan Pottery (Black-on-Red painted pottery) is available in all these sites, the Black-and-Red Ware is conspicuous by its absence. It may be relevant to mention here that a re-examination of ancient mounds at Prakasha and Savalda on River Tapti, has yielded characteristic Late Harappan Pottery. At Prakasha, surface collection yielded one faience cylindrical bead and two tiny parallel-sided chert blades, showing Harappan affinities.

In view of the situation and potentiality of this site, excavations at *Varsus* may provide evidence of cultural assimilation of Late Harappan Culture. In this context, the discoveries at *Varsus* are significant with later Chalcolithic culture of Tapti Valley in particular and South-Central Protohistoric Cultures in general.

IV

Pre-Neolithic and Neolithic Cultures in Tamil Nadu

B. NARASIMHIAH

Since Surgeon Cornish discovered ground stone axes for the first time around 1865 in Tamil Nadu[1], many scholars have worked on the problem. Bruce Foote, the pioneer in this field, could collect and classify hundreds of tools from the region. In fact, he was of the opinion that the District Salem (present Districts Dharmapuri and Salem), which is endowed with castellated hills and natural caverns, was an ideal region for habitation of the neolithic people. Krishnaswami included the region under the neolithic cultural zone of South India, basing his views solely on the tooltypes.[2] Rao, however, gave a new dimension to the problem by discovering and excavating a habitation site at Paiyampalli in District North Arcot.[3] This discovery led the scholars to think that Tamil Nadu was the peripheral zone of the neolithic culture of South India[4], as the beginning of the neolithic habitation at Paiyampalli could be dated to the early centuries of the second millennium B.C. But the recent field-work conducted by the author in the region has brought to light hitherto unknown features of the neolithic culture in Tamil Nadu. The result of the field-work can be studied under the following sub-heads : (*i*) Pre-neolithic patinated stone industry; (*ii*) Pre-pottery neolithic; and (*iii*) Neolithic culture.

The Pre-neolithic patinated stone industry, technologically, does not belong to any of the well defined lithic industries—either the palaeolithic or the neolithic. The artefacts, made on suitable natural pieces of dolerite, except blade-flakes and two other tools which are on flakes, vary in size between 12.5×70 and 4.5×2.5 cm. The techniques employed are limited to the Clacton and cylindrical-hammer, and the retouching is conspicuous by its absence.

The tool repertoir consists of : (*a*) handaxe, (*b*) ovate, (*c*) awl-cum-scraper, (*d*) chopper, (*e*) chopping tool, (*f*) miniature handaxe, (*g*) axe, (*h*) hammer-stone, (*i*) wedge, (*j*) bladeflake, and (*k*) cylindrical core. However, the nomenclature adopted to identify the tools does not suggest any technological similarity, cultural contact or continuity of tradition, but indicates similarity in form and probable function. The sites which have yielded these tools are, a site near Bargur[5] and Kappalavadi in District Dharmapuri, and Tirumalai and Siyamangalam* in District North Aroct (Fig. 3).

It would not be out of context to refer to some of the sites, such as Sanganakallu[6], Kupgal and a site on the Bellary-Moka road[7], T. Narasipur[8] and Hemmige[9] which have accounted for such patinated flakes. However, the artefacts from Tamil Nadu differ technologically from the ones found at the above sites.

Significantly, Bruce Foote who collected such tools from a site near Bargur had this comment to make : "So rude indeed that it was very difficult to decide what age to ascribe them to, for their shapes are not characteristically neolithic, while all the unquestionably palaeolithic implements of the country north of the Vellar river have been made of quartzite of Cuddapah age. If palaeoliths of stone other

*The author is thankful to Shri L.K. Srinivasan, Superintending Archaeologist of the Southern Circle of the Survey for kindly permitting to examine the material collected by Shri Shivananda, Technical Assistant of the Survey.

than quartzite were not so exceedingly rare, I should incline to regard these Bargur specimens as palaeolithic in age—but whatever age they may be of they can only be regarded as the workmanship of extremely clumsy beginners in the art of making implements of stone."[10] Therefore one is tempted to wonder whether this assemblage belongs to an early stage of the pecked and ground stone industry when the grinding of the tool was not yet adopted. However, at present it can be said that these artefacts belong to preneolithic period.

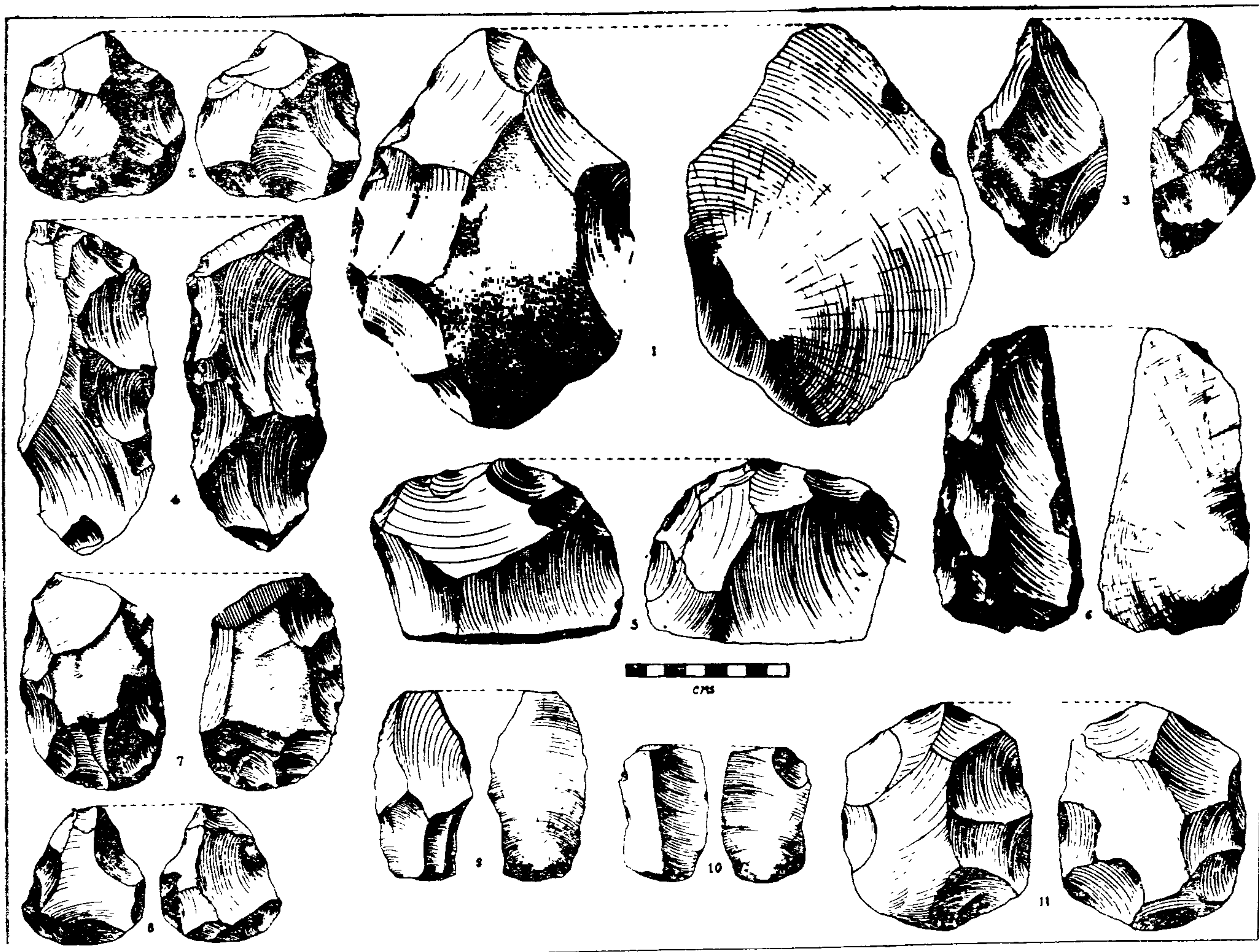


Fig. 3. Kappalavadi : Preneolithic Stone Industry.

Investigations on the top of the hills such as Shevroy, Vattalmalai, Kalrayan in District Dharmapuri, and Javadi and Tirumalai in District North Arcot, have yielded thousands of neolithic tools of pecked and ground stone industry along with microlithic tools comparable to the Late Stone Age tools. But there is no habitation site with pottery or any other indications on the top of the hills. In fact, the Vattalmalai has six modern villages on the top (about 12 sq km in area), and the people of each village have collected hundreds of polished stone axes.

Further, it is said that even now, while ploughing, these implements turn up occasionally. This phenomenon is repeated on all the hills referred to above. The tool-types encountered are : (*a*) axe, (*b*) adze, (*c*) chisel, (*d*) wedge, (*e*) hammer- stone, and (*f*) rubber-stone. But the first two types dominate the tool repertoire.

Naturally the question arises that who were the people who prepared and used these polished stone axes? If it is assumed that they belong to the neolithic people who are represented by the habitation sites in the districts, then it is natural to expects the remains of other elements of the culture on the top

of the hills. But, on the contrary, there is no trace of such material remains which would indicate at least a temporary settlement. Of course, it can be argued that the areas might have been visited by the people occasionally for hunting and food collecting. But there are no habitations of the neolithic people in the region around Javadi and Tirumalai hills. The nearest habitation site is more than 50 km from these hills. And, as we know, the hunting was only of subsidiary nature in their food economy. Further, the varieties of polished stone tools such as chisels, hammer-stones, axes, etc., collected from these sites suggest the multifarious activities of the people. Another interesting feature is that the neolithic habitation sites have yielded very few polished stone tools, and even among them the fragmentary ones are in large number, whereas those collected from the top of the hills are in good condition. One can venture, therefere, to infer that these polished stone axes belong to the pre-pottery neolithic culture. However, this hypothesis needs to be strengthened by excavation.

The neolithic culture in Tamil Nadu can be divided into three phases. Phase I is dominated by coarse red ware, microliths devoid of blades, but comparable to the tools of the Late Stone Age of the region, and pecked and ground stone industry. Dailmalai and Pannimaduvu in District Dharmapuri are the type sites of this phase.

The ceramic industry of the phase is characterized by handmade, coarse, ill-fired, thick in fabric in red, tan and blochy brownish grey wares. The types are limited to wide mouthed globular vases with flared featureless rim, luted to the neck, deep bowl with featureless rim and tapering sides, lid-cum-bowl (platter) with featureless rim, etc. Lug handle luted to basin is very common in this phase. Some of the sherds show incised decorations like chain pattern, oblique lines, criss-cross, triangular punches, and ladder type.

Pecked and ground stone industry is represented by axe, adze, wedge, chopping tool, hammer-stone, rubber-stone, palette, muller and quern. The raw material used to fashion the tools is essentially well grained dolerite. However, hornblendic gneiss, granite and syenite are also rarely used in the manufacture of tools. The gneiss is used for manufacturing edge tools and granite and syenite for pounders and chopping tools.

The microlithic industry, typologically, is rich in points—simple, asymmetrical and symmetrical. Scrapers of various kinds, lunates, awls, transeverse arrow-heads and micro-burins are also represented. Blades are conspicuous by their absence. The material used for manufacturing tool is quartz. However, crystal and chalcedony are also rarely used for the purpose.

Phase II is also dominated by coarse red ware, but the burnished grey ware and tan ware are equally important fabrics in the ceramic industry of the phase. There is significant increase in the burnished and slipped vases. Lug handled basins are comparatively less in number. Many incised decorations seen in Phase I are given up in this phase. Black and brown wares, besides rusticated ware and incised decoration like combed design appear for the first time. Though the majority of the vases are handmade, pottery made on slow wheel is also represented in good number. In the microlithic industry of the phase, true blades make their appearance in an incipient manner, in addition to the types represented in Phase I. There seems to be no change in the pecked and ground stone industry. This phase is very well represented at Togarappalli in District Dharmapuri.

Phase III is dominated by thin, well fired, finely burnished grey ware, besides equally dominating thin, burnished red and tan wares. There is considerable increase in frequency of black and brown wares. Lug handled basins and platters are totally absent. Almost all the vessels are either slow wheel or fast wheel turned and slipped. Channel spouted bowls appear for the first time. In the microlithic industry, parallel sided blades are prominently represented. There seems to be a shift in emphasis for chalcedony and rock-crystal as raw material for the manufacture of tools. There is no change in the pecked and ground stone industry. The sites are Mullikadu in District Dharmapuri and Paiyampalli in District North Arcot.

These three phases observed in Tamil Nadu have also been encountered in the excavation at Nagarjunakonda.[11] However, there are significant differences also. The Phase I of Nagarjunakonda differs in having short blades in considerable quantity in the microlithic industry. Phase II of Nagarjunakonda, in which burnished grey ware makes its appearance, is associated with cemetery with extended inhumation, whereas, Phase III is marked by the dominance of the grey ware over red ware and the

occurrence of urn burials for infants, and adults and children buried in cemetery in extended positions and post-excarnation burials. Disc-circular beads of paste, steatite and shell appear in this phase.

At T. Narasipur, in Karnataka, it is reported that the earliest layer has yielded coarse red ware[12] (Hanumantha Rao and Nagaraju, 1974 : 72-3). The superimposing layers of the neolithic culture have yielded burnished grey and pale red wares and other finds which are typical of the neolithic culture of Karnataka.

It is obvious, therefore, from the above evidence that the red ware tradition of the neolithic culture was in vogue in the eastern part of south India.

The dating of these cultures and phases is a difficult task as there are no C^{11} dates available for all of them. But an attempt can be made to date them by adopting relative dating method.

As we know, Paiyampalli and Mullikadu represent the third phase of the neolithic culture in Tamil Nadu. The C^{11} date (1725 ± 110 B.C.) from Paiyampalli suggests that the people might have settled at the site around 1800 B C., which is also confirmed by a date (1805 ± 110 B.C.) from the level superimposing the coarse red ware deposit at T. Narasipur. Therefore we can place the beginning of the last phase of the neolithic culture in Tamil Nadu around 1800 B.C. Consequently this date probably indicates the end of the second phase of the neolithic culture.

The beginning of the second phase represented at Togarappalli is difficult to compute. However, the thickness of the occupational deposit at Togarappalli is nearly 20 cm. What was the span of time taken for this debris to accumulate ? Taking into consideration the archaic form of the culture and the limited nature of sites belonging to this phase, it can be postulated that the population too was less, and hence, it must have taken fairly a long time for this thin deposit to be accumulated. Therefore a span of 250 to 300 years would be reasonable, because, we know that it took nearly 1300 years (from 1800 to 500 B.C.) for the accumulation of the cultural debris of more than one metre at Paiyampalli. The beginning of this phase, therefore, can be dated to 2100 or 2200 B.C.

The computation of initial date of the first phase is also bound to be difficult task. But, basing on the evidence that the thickness of the cultural deposit is 15 to 20 cm, at Dailmalai, we can place the beginning of the phase or the red ware tradition to a date earlier than 2500 B.C. The excavator of Nagarjunakonda, too, taking into consideration the archaic form of the first phase of the neolithic culture at Nagarjunakonda to that of the one represented at Uthnur, which is dated to 2160 B.C. on the basis of the radiocarbon test, assigns a date earlier than 2500 B.C. to the red ware tradition at Nagarjunakonda[13] (Sarkar, 1975 : 80-81). But the phase represented in Tamil Nadu is more archaic than the one represented at Nagarjunakonda, as the former has no blade element in the microlithic industry of the phase. Therefore, it can be safely said that the red ware tradition or Phase I of the neolithic culture can be dated to the early centuries of the third millennium B.C. Thus, the pre-pottery neolithic and the pre-neolithic stone industry could be dated to the beginning of the third millennium B.C. and the closing centuries of the fourth millennium B.C. respectively.

Thus, the recent field-work in the region has not only thrown fresh light on the neolithic culture of Tamil Nadu, but also established the occurrence of a pre-neolithic industry which may be dated to the closing centuries of the Fourth millennium B.C.

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V

The Daimabad Bronzes

H.D. SANKALIA

As early as May-June 1974 the bronzes here described were found at Daimabad, Srirampur Taluka, District Ahmadnagar. The scholars of the Deccan College immediately visited the site, and photographed the finds in the Police Chowky, where they were kept. However, owing to the restriction on publication, nothing was written on these unique bronzes. Now some comments only are made, and a brief article by Sri S.R. Rao has recently appeared in the *Illustrated London News*, March and April 1978.

The four bronze figures are :

(1) a humpless bull standing on a flat plate, supported by four solid wheels (Pl. II b);

(2) an elephant, likewise, but the wheels are missing (Pl. II c);

(3) a rhinoceros, with its four legs, resting not on one single plate as in (1) and (2), but on separate ones, each supported by a pair of solid wheels (Pl. II a); and

(4) a chariot, quite open, and meant to be used in war or a hunt, rather than for domestic purposes. It is driven by a driver who is standing, with a dog standing on the pole (Pl. II d).

Though these bronze figures have been compared with those from the Indus Valley proper, Harappa and Chanho-daro, and Lothal, still these are *unique* in *every* way.

THEIR WEIGHT AND SIZE

Those of the Indus civilization are light and small in size (4 to 15 cm in height), whereas these are 20 to 35 cm in height. Hence these are exceptionally heavy; the elephant without wheels weighs nearly 20 kg., whereas the remaining three together weigh 20 kg. Unlike the true Harappan bronzes which are made by *cire perdue* (lost wax) process, these are solid cast.

Inspite of these differences which are indeed striking, Shri Rao thinks that these are truely Harappan or Late Harappan. However, one must take cognizance of these differences. These raise several questions, about their function and fabrication. Were they made locally at Daimabad or at Ambhore, near by ?

Whether these are Harappan or not, the most important questions are : "what was the purpose for which such heavy, wheel-drawn animals were made ?" The most likely purpose is ritual. They could function only in a temple with a smooth floor. Hence the excavators should have searched for such a structure.

So far no full report on Daimabad excavation has been published. Even if there is evidence for such a furnace at Daimabad, two further questions face us.

"Could it be proved that these bronzes were made from the copper refined at Ambhore ?" For such a reply, we must have evidence as we had at Ahar. An analysis of the slag from Ambhore. and that of the bronzes themselves should answer the question.

The same question would be true of the row of furnaces *in situ* found at Daimabad itself. These furnaces, 2 metre in diameter, are built of thick potsherds and plastered with mud and lime. One furnace has two openings to allow molten metal to flow into a pot placed at a lower level. Such a furnace found

at the Jorwe level had walls 4 centimetres thick, a hole in the bottom for molten metel to flow into sand-lime pits.

Most important, copper is indeed scarce in Maharashtra. So Shri Rao thinks that either the Raichur, Chitradurga or southern Rajasthan sources were exploited. But again a technological connexion either with southern Rajasthan or Karnataka mines has to be established. And this a scientific study of material from both the sources, and the nature of the copper used in the bronzes alone can say.

When we turn from these questions of fabrication to those of use or function of all these four heavy bronzes, we have to ask ourselves the question in which culture in India gods, goddesses and their associates are or were taken into a procession ?

As far as we know there is no trace of a god being carried in a procession in the Vedic or Post-Vedic religion.

However, we have the "*Rathayātrā*" ceremonies in later Hinduism, and many of the South Indian temples, until recently, had, and still have, wooden *rathas* in the temple complex.

Some such ritual must have been there in the Indus religion, if the bronzes are truly Harappan. Further their weight suggests that so much copper could have been used (economically) only in the parent sites like Harappa and Mohenjodaro. Secondly from the point of view of the function, vehicles even with solid wheels could be used in a flat, sandy country like Sind, and the Punjab, and not in the rocky, uneven country of the Deccan.

Thus technologically, and archaeologically, these bronzes would be more at home in the north than in the Deccan. Ethno-archaeologically, the bronzes could be mediaeval rather than prehistoric.

Anyway, this chance discovery has given unique bronzes and considerable food for thought.

Objection to their age has been raised on scientific ground as well. According to atomic absorption spectrometry, these bronzes show more than 1% arsenic. Whereas no arsenic alloying has been reported from the chalcolithic culture.[1]

Though this might be true, all the 13 specimens from Mohenjodaro analysed chemically by Mahammad Sana Ullah[2], contains varying amounts of arsenic. This was added for hardening.

A similar alloy was also used in Egypt. Thus the presence of arsenic in the Diamabad bronzes might show that they were manufactured in the Indus Valley proper, and not in the Deccan, and brought here by refugees. Hence it could be a true hoard, buried by a people in hurry.

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VI

Earliest Iron-using People in India and the Megaliths

(Recent Excavations at Tadakanahalli Taluk Hirekerur, District Dharwar, Karnataka State, India)

M.S. Nagaraja Rao

Until recently, the iron implements and tools found in megalithic graves of South India were considered to be the earliest evidence of Iron in India. The graves were originally dated to about 300 B.C., by Wheeler.[1] D.H. Gordon had declared in 1950 that there is "no material evidence yet of the use of iron by any one in India or Pakistan prior to B.C. 250", apart from those people of Baluchistan who practiced megalithic tombs or Cairn burials.[2] Wheeler, however, postulated that the Achaemenid Persians introduced the use of iron into northern India at the end of the 6th century B.C. and that iron works of the megalithic builders of South are derived from the north.[3]

Recent discoveries in the north have shown, on the contrary, that the people had the knowledge of iron much earlier. The excavations at Hastinapura,[4] Alamgirpur,[5] Kausambi[6] and Ujjain[7] have revealed that iron occurred in association with the pottery known as the painted grey ware which has been dated to about 800 B.C.

In South India, the earliest evidence of iron was found in association with the megaliths, and as already mentioned, Wheeler considered these iron works to have been derived from the north.[8] Dr. N.R. Banerjee, on the other hand, ascribed the earliest occurrence of iron in the Peninsula to about 700 B.C., and concluded that "the Iron Age in India was ushered into South India later than in the Ganga plains."[9]

The excavations at Hallur, in Hirekerur Taluka of Dharwar district by the author, during 1965 revealed that the evidence was quite contrary to the above theories.[10] The research dig at Hallur revealed two periods of occupation : Period I, Neolithic-Chalcolithic; and Period II, an overlap of neolithic-Chalcolithic and the Early Iron Age cultures.

Period II, that is the overlap phase, indicated the arrival of a new wave of people, at the site, with iron implements, consisting of arrow heads, spearheads, daggers and knife blades. They also brought a new and distinctive pottery known as the black-and-red ware, with a white-painted variety. The white painting consisting of groups of lines, was a post-firing decoration. The earlier neolithic-chalcolithic inhabitants used to bury their dead in the habitation site itself, many times, under the floor of their own huts. But the excavations revealed that with the arrival of iron-using people, the dead were disposed away from the village.

A series of radio-carbon dates were obtained from the Radio-carbon laboratory of the Tata Institute of Fundamental Research, which showed that the arrival of iron-using people and other changes took place around 1000 B.C. (T.F. 575, 2980 ± 105 B.P.).[11] Thus it has now been established, on the present evidence, that the earliest evidence of use of iron in India comes from Hallur in Dharwar district, in Karnataka, in the peninsular India.

We have mentioned that iron was associated with the megalithic builders of the South. Although, we have evidence to date the earliest occurrence of iron, we have so far no evidence to date the so called megaliths to such an early date as 1000 B.C., the date for the early occurrence of iron. We have also mentioned that with the arrival of early iron-users, a change was noticed in the burial custom at Hallur. To the north of the Hallur hundreds of the so called megaliths were also noticed. But without excavations, these graves could not be related to the habitation site. However, it was important and had to be done.

Recent reports received from Hirekerur region of the Dharwar district indicated that these graves were being indiscriminately dug out by ignorant people who believed that these graves locally called "*Siddharakaṭṭe*" (platforms of ascetics), "*Bhasmadakaṭṭe*" (platforms containing ash), or "*Pāṇḍavarakaṭṭe*" (platforms of the Pāṇḍavas) contained either gold, or some kind of ash which would convert any metal into gold. During early 1960s, the author had surveyed this area and had located a large number of these megalithic graves. But in early part of May 1978, when he went for an inspection, he could not find many of these localities, because people had removed all surface indications. The only site where 30 graves out of 38 were found undisturbed was in the vicinity of Tadakanahalli, a village about 8 Kilometers west of Hallur, in the Hirekerur Taluka of Dharwar District (Fig. 4). It was, therefore, decided to carry out excavations urgently, before the undisturbed graves were also subjected to human vandalism.

EXCAVATIONS AT TADAKANAHALLI

The excavations were conducted by the author, in the second half of May 1978, at the Megalithic site, located about 2 kms north of the village Tadakanahalli. Four graves were selected for the purpose. All the graves belong to the category known to archaeologists as *stone circles*. The surface indications of these graves show a cairn heap, surrounded by large boulders, forming a circle. On excavating these circles, all of them proved to be undisturbed graves.

MEGALITH I (PL. III a)

This was found to be a circle of 9.50 metres. After digging to a depth of about 45 cms when quartz gravel layer was encountered, it was found that authors of the grave dug a near-circular pit in the centre upto the natural rocky surface. Then, utilising the unevenness of the ground, they have placed a large number of pots and pans. The varieties of vessels placed in the grave include black-and-red ware bowls, conical lids, small globular pots, lids of both black and red wares, and globular pots with 4 spouts and pots with 4 short legs of red ware (Pl. IV a and Figs. 5, 6, 7 and 8). After placing the vessels, a layer of clayey earth has been spread over and a kind of platform has been prepared, to place the skeletal remains belonging to two persons. The bones, including the skull, long bones, have been arranged on this platform. Some bones probably of animals were also found (Pl. III b). Other grave goods include iron implements, consisting of an arrow head and a dagger (Pl. IV b). One of the most important features is the occurrence of white-painted black-and-red ware bowls, similar to those we know from Hallur iron-Age overlap levels. After placing the vessels, bones etc. the burial pit is filled to the brim, with clayey like earth, brought from elsewhere, as the filling contains small shells and molluscs. Then the outer pit upto 45 cms has been filled with large sized rubble and earth. A cairn or heap of stones has been prepared, around which large boulders have been arranged in a circular fashion.

MEGALITHS II, III AND IV

All the above three megaliths have revealed the same procedure in the ritual of the burial. However, the differences are noted only in their size, and the number of pots found in them. Megalith II is 9.10 metres in diametre while III (Pl. VII a) and IV are 11.50 metres and 6 metres respectively. Megalith II contained 34 vessels (Pl. V a and b); Megalith III had 36 pots and Megalith IV yielded 27 vessels. Iron implements found also varied in number. Megalith II had 9 objects consisting of a heavy axe, arrow-heads, spearheads and knives (Pl. VI a and b); Megalith III fragments of six objects (Pl. VIII b), while the

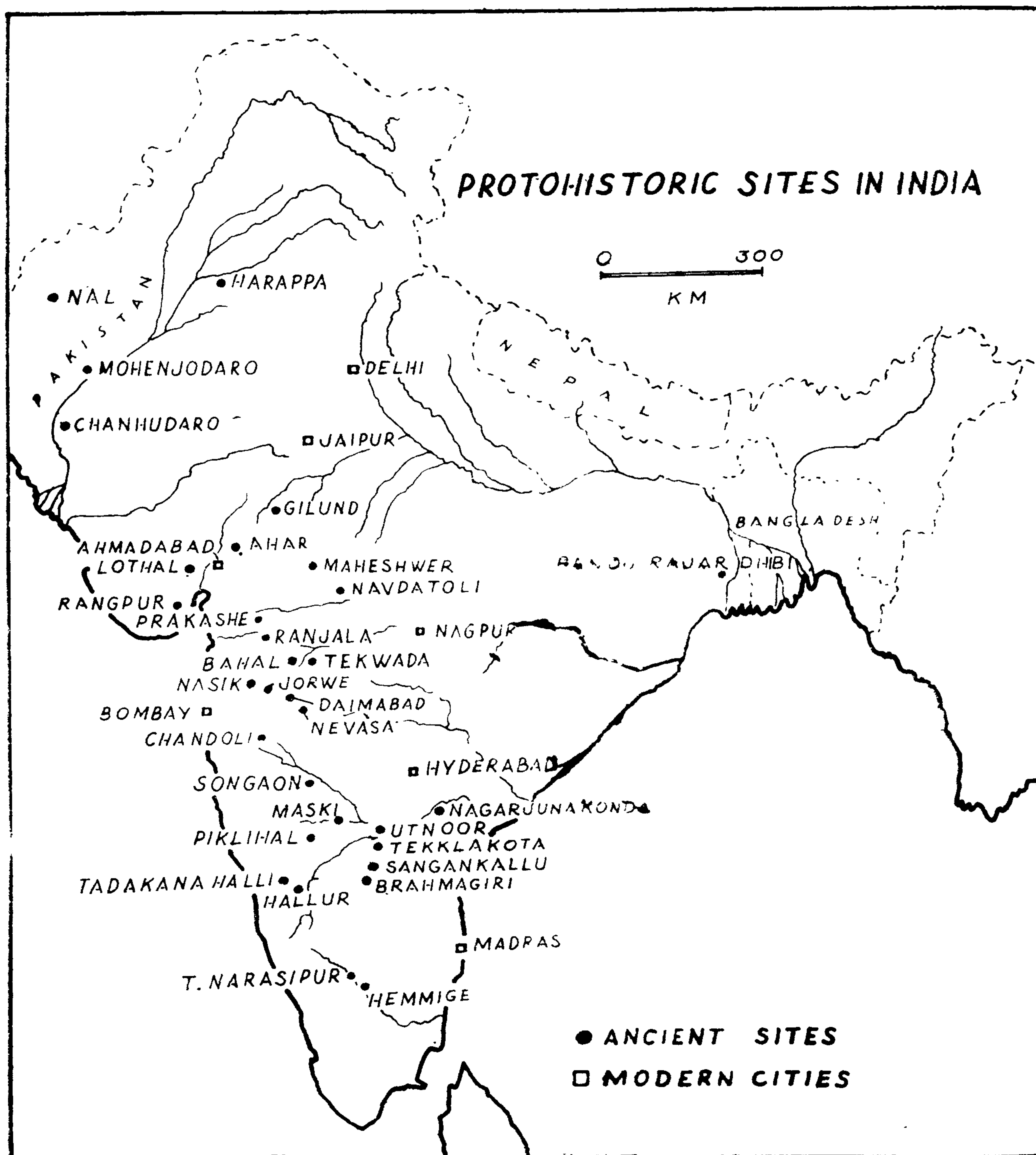


Fig. 4. Map showing the Protohistoric sites in India.

Fig. 5. Tadakanahalli : Multispouted Vessel and a Jar—Red Ware (Megalithic).

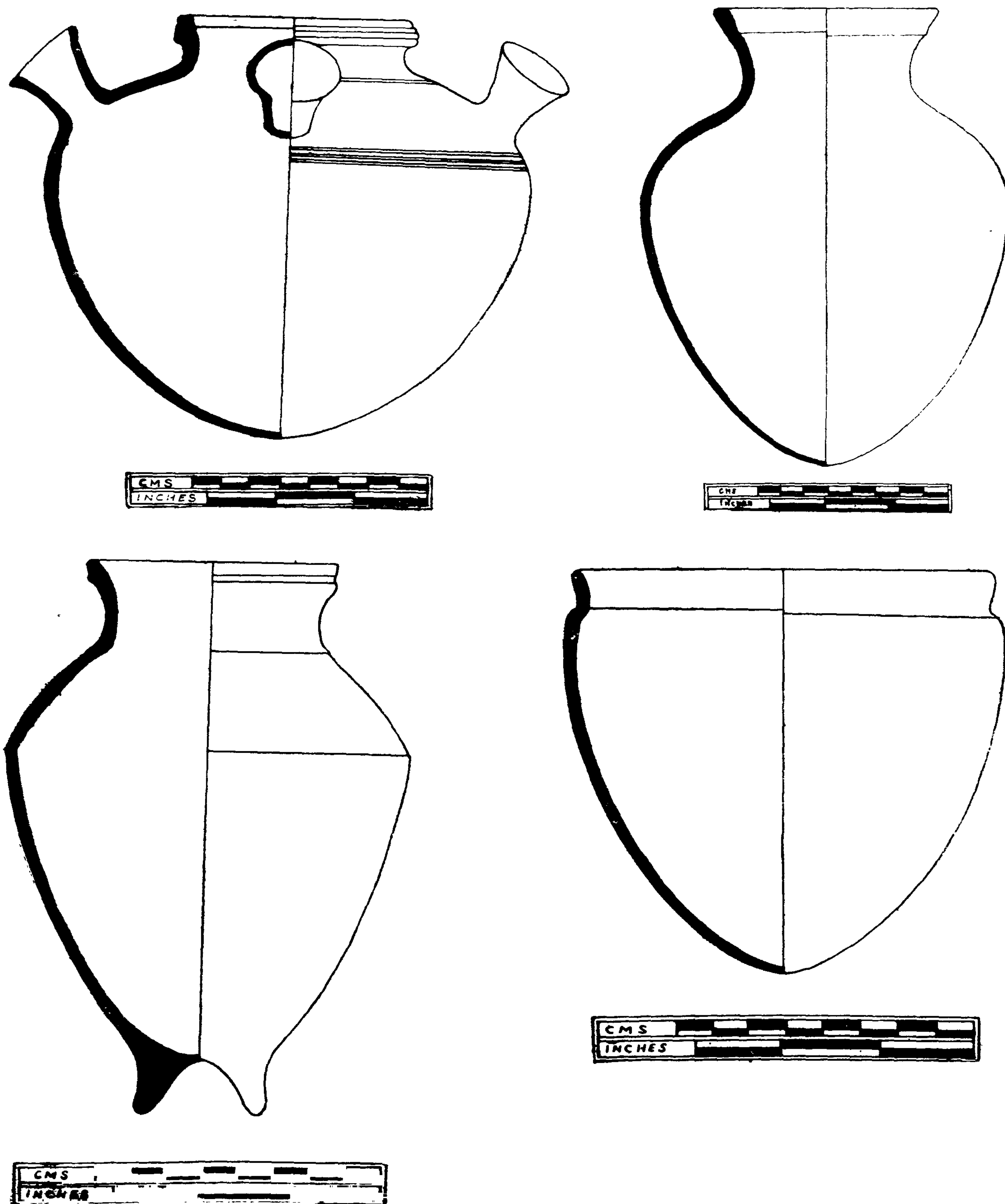


Fig. 6. Tadakanahalli : Four-legged Vessel—Red Ware and deep-bowl of All Black Ware (Megalithic).

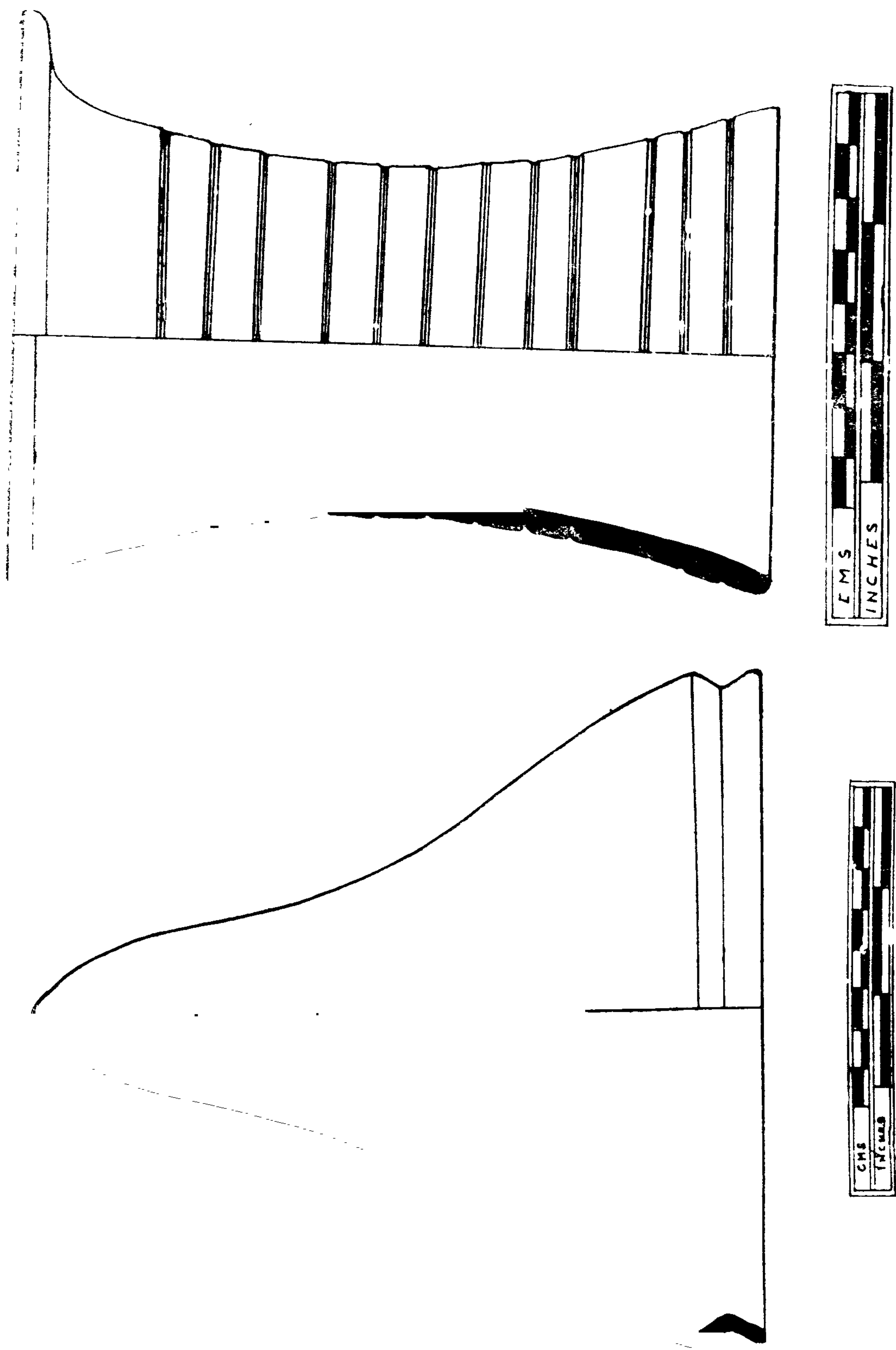


Fig. 7. Tadakanahalli : Conical lid and stand with corrugations—all black ware (Megalithic).

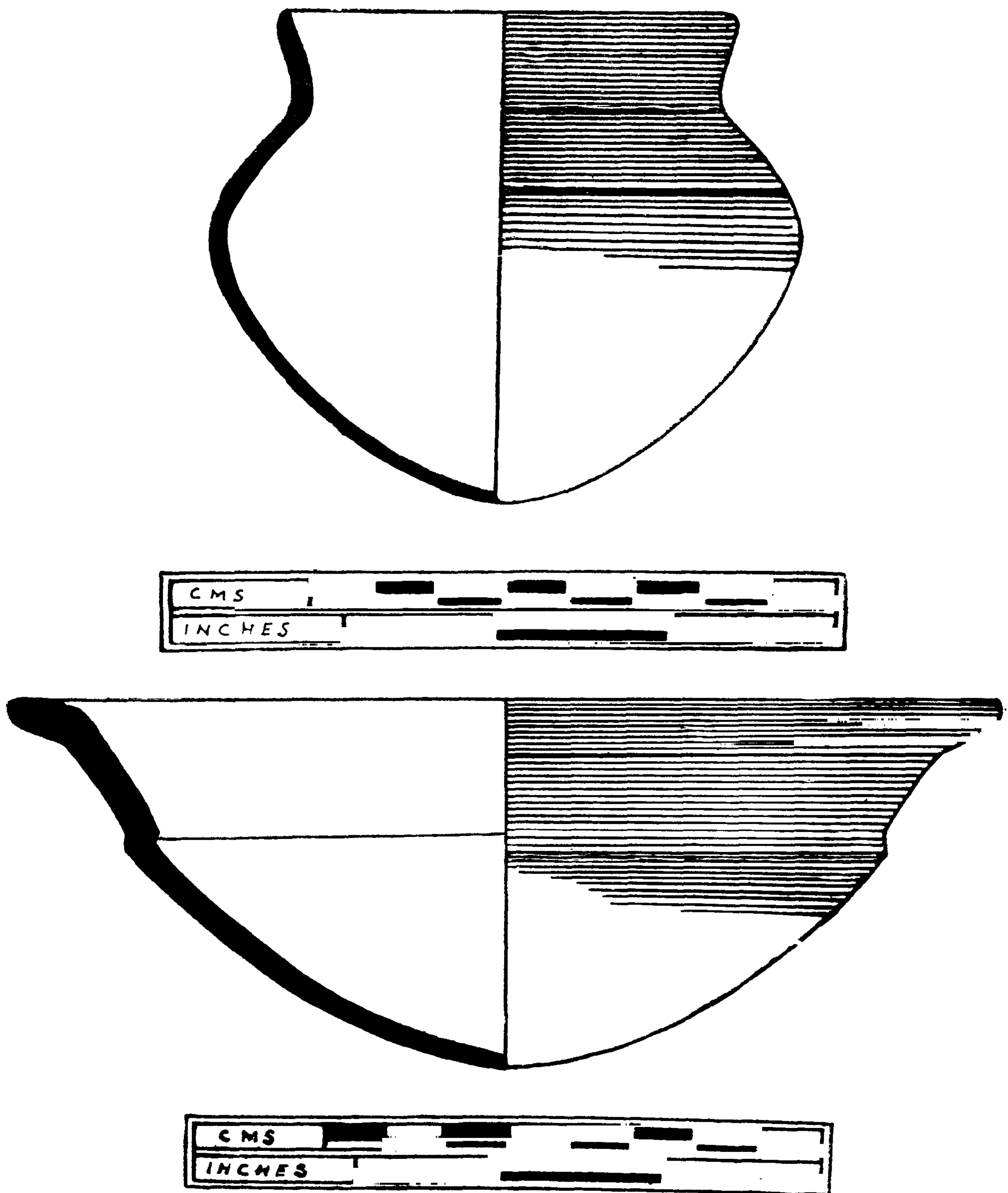


Fig. 8. Tadakanahalli : Small globular pot and Tulip shaped bowl—Black-and-red ware (Megalithic).

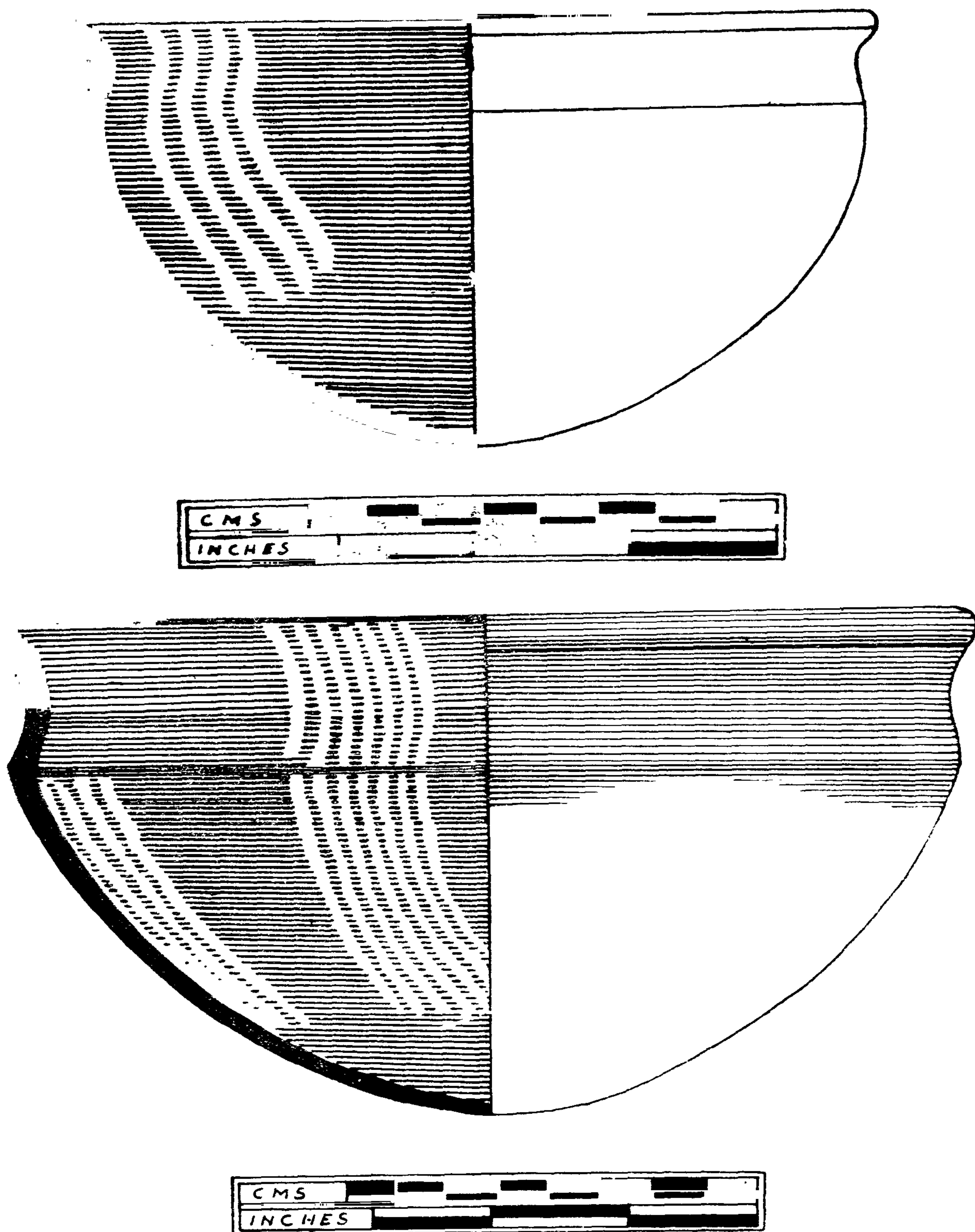


Fig. 9. Tadakanahalli : Tulip shaped bowls with post-firing painting, black-and-red ware (Megalithic).

last one. Megalith IV yielded two arrow-heads, a dagger and a nail (Pl. VIII d). Megalith II and III should be specially mentioned for the occurrence of urn-burials inside them (Pls. V a and b and VII c and d).

The excavations have yielded very important results with regard to the Chronology of the megaliths in India. The occurrence of special and the distinct white painted black-and-red ware pottery (Fig. 9) in the burial appendage of the excavated megaliths help us to relate the burials to the overlap phase of neolithic-chalcolithic and the early Iron Age, known to us at Hallur. Even the iron tool types from these graves show a similarity with those found at Hallur. Similar tanged arrow heads, spears and daggers were unearthed from the overlap levels at Hallur. We have already known that the overlap phase at Hallur can be ascribed to *Circa* 1000 B.C. Now with the occurrence of the same white-painted black-and-red ware and similar, the iron implements in the graves of Tadakanahalli, we can safely say that these graves are contemporary to the overlap phase of Hallur and therefore may belong to about 1000 B.C. These are, therefore, the earliest datable megalithic graves in India.

Another point of interest to note is that two of the graves contain urn-burials, a feature common to neolithic-chalcolithic phase of the Deccan. This evidence also adds to the fact that since both groups of people were living together, they naturally influenced the customs of each other. The newly arrived people perhaps borrowed this feature in their burial customs.

It is perhaps, for the first time we encounter multi-spouted vessels in the megalithic graves in India (Pl. VIII a and Fig. 5, No. 1). These are peculiar red-ware libation vessels. It is to be examined if it connotes any foreign influence. For, in some of the Mesopotamian graves, dating back to about 2800 B.C., such multispouted vessels occur. Multi-spouted are also said to occur in Baluchistan, at sites like Jiwanri etc. If this is confirmed, then the occurrence of such vessels for South, at Tadakanahalli assumes great importance. However, this requires to be confirmed.

The types iron implements recovered now both from these graves and the habitation site at Hallur (in 1965) show that they are mostly weapons of war, unlike, those found in other excavated Megaliths. A closer study of these weapons and the multispouted vessels may indicate who the authors of these graves are. The excavations of the Megaliths at Tadakanahalli are, therefore, extremely significant for the study of the early Iron Age and Chronology of Megaliths in India.

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VII

Some Aspects of Megalithic Technology

S.B. DEO

The megaliths of peninsular India have been tapped during the last more than hundred years. They have proved to be rich in respect of funerary equipment interred with the dead. Initial accounts of these have been mostly descriptive even though a few earlier scholars have given us metallurgical analysis of some of the objects recovered. However, these attempts have not been sufficient so as to give a more comprehensive account of the metallurgy of the megalithic people.

The level of metallurgical excellence attained by the megalithians can be discerned in two ways. First is the range of tools which indicate the possible use of these based on material requirements. Secondly, analysis of the metal objects displays the technological skill depending on the requirements, source of raw material and the economic structure of the megalithic community.

The available evidence shows that the megalithic people of peninsular India have utilised different metals like gold, silver, copper, bronze and iron, as also glass and semi-precious stones like cornelian, agate, chalcedony, etc., for beads. The amount of objects found so far in these media is fairly large, implying either an uninterrupted supply of raw material or definite sources for barter or exchange.

However, the largest number of objects have been prepared out of iron. These include axes with cross-ring fasteners, hoes, plough shares, coulters, objects of offence like swords, daggers, lanceheads, arrowheads, tridents and long *śūlas*; objects of toilet like nail-parers, objects of daily use like frying pans, lamps, ladles and stands, and apparatus for carpentry work like chisels, etc. Some of these are indicative of specialised work in respect of woodwork. For instance, the megaliths of Vidarbha region of Maharashtra have given chisels of long but sturdy blades with bevelled cutting ends and wooden handles. The width of the curring end has a varied range which implies their use for socketting, shaving of wood etc. However, no tangible evidence of woodwork has so far been available, obviously because of the perishable nature of the material.

The carpentry and other tools of special use, as for instance axes, lances, daggers, seem to have been made with special care. For instance, the iron tools like chisels at Mahurjhari and Khapa in Maharashtra seem to have contained 99% of iron, this purity may entitle it to be called steel. For the preparation of such tough steel, at least at two sites there is unmistakable evidence of the use of local slag. For instance, evidence of iron-smelting has been reported in megalithic context at Paiyampalli[1] in Karnatak. Similar evidence has also been recovered at Naikund, a megalithic site in Maharashtra where large quantities of iron slag with as much as 53% iron have been found within the megalithic habitational deposits. This stands testimony to the knowledge of local deposits and the process of producing steel.

Similar observations can also be made in respect of copper/bronze. This metal was also utilised for preparing a variety of objects like bangles, dishes, lids, dagger hilts, and ornaments for horse prepared out of copper sheets. However, in a majority of cases the tin content is pretty high thus entitling these to be designated as bronze. For instance, the bowls from the Nilgiri[2] megaliths contain 29.80% tin whereas the cups from Raigir in Andhra Pradesh show a tin percentage[3] of 21. This distinctly shows

that these objects are of bronze. On the other hand, the copper bangles from Khapa and Mahurjhari stone circles in the Vidarbha region of Maharashtra have 8.5% tin.[4] It is thus apparent that bronze objects associated with the megaliths of different regions of peninsular India show a very high percentage of tin, though this percentage, as the available evidence shows, is lesser in the northern part of peninsular India.

Another noteworthy feature of copper/bronze objects is that different techniques seem to have been adopted in the preparation of different objects. For instance, the copper bangles[5] from the megaliths of Vidarbha show that they have been executed out of solid bars of metal and their ends cut and filed. On the other hand, the birds of the finial of a copper lid from the same region seem to have been fashioned out of a mould as the same mould-marks as well as the rough porous surfaces attest. The ornament for the horse, as at Khapa, Mahurjahari and Naikund from the same region, have been prepared out of a thin copper sheet by beating surface and neatly perforating the periphery for stitching it to a leather base to be ultimately mounted on the face of a horse. It appears therefore certain that hammering, filing and moulding were adopted by the megalithic people in the preparation of copper/bronze objects.

The objects of gold and silver also show an advanced technique in their preparation. Diadems, rings, sprial ornaments, necklaces with cabled wires have been reported from far flung megalithic sites like Adichanallur[6], Paiyampalli, Junapani[7], Mahurzari[8], Khapa and Nagarjunakonda[9]. It is interesting to know that the Mahurjhari golden objects contain a very high percentage of silver[10] ranging between 86 to 25.6%. Such an analysis in respect of the gold objects from Nagarjunakonda and Adichanallur has not been available. But it appears that the megalithic people of Vidarbha region either did not have sufficient source of gold, or silver was intentionally mixed to make gold ornaments more sturdy. The technology involved in the execution of gold objects seems to have been varied as the cabling of gold wire, decorating gold leaf with repousse technique[11], mounting of gold leaves on possibly a lacquer base, attest. Paiyampalli[12] has given a goldsmith's mould whereas very thin wire work has been evidenced in the objects from Naikund in Vidarbha.

The reasonably extensive use of silver has been attested not only by the high percentage of silver in gold ornaments, but Junapani[13] Stone Circles have given silver studs and spacer beads of silver. Both these show the adoption of specialised technique and the experience of silver-work of long standing. Whereas it might be possible that the megalithic people managed to get gold from Kolar mines in Karnatak, it is not possible to say what source was available for silver.

Another craft the megalithians seem to have been adept at is that of bead-making. A variety of semi-precious stones like agate, cornelian, crystal, chalcedony and bloodstone as also other materials like glass and lapis lazuli were used in the making of beads. At Mahurjhari[14] in Maharashtra, abundant quantities of nodules of cornelian as also beads in various stages of preparation were found implying a large scale local industry. This shows that at least Mahurjhari was one of the centres of bead-making which catered to the needs of the megalithic people. The find of lapis[15] beads in megalithic burials evidences the fact that this non-indigenous material was either procured by the megalithic people or they managed to get it from some local source importing these. The megalithians of peninsular India seem to have mastered the technique of etching cornelian and agate beads, and some designs and shapes can be marked out as typically megalithic[16], as for instance, tablet beads with dots or strokes at the periphery and cylinders with chevron designs. Some of the glass beads as at Paiyampalli[17] and Maski[18], show local manufacture and inferior quality as the glass is bubbly and not very transparent.

The level of craftsmanship reflected in the manufacture of metal objects and beads, reflects that the megalithic people either maintained a class of artisans who catered to the needs of the community in respect of exotic and basic requirements. Such technical skill can be acquired by a community which leads a stable life and which has an economic surplus. This can be evidence only on the basis of locating their extensive habitation sites.

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VIII

Some Observations on Harappan and Early Historical Seals

K.K. THAPLYAL

The present paper seeks to set forth the salient features of seals of the Harappan[1] and early historical[2] periods, to discuss their genesis and also to determine whether or not the seals of the historical period are modelled on those of the Harappan ones.

SEAL DIES AND SEAL IMPRESSIONS

Hundreds of seal-dies have come to light at Harappan sites, particularly at Harappa and Mohenjo-daro, but hardly any seal impressions. This circumstance led some scholars in the past to doubt whether such dies served the purpose of seals, and to suggest that they were amulets. The find of sixty-five clay seal-impressions from the remains of the 'warehouse' building at Lothal[3], and a few from Kalibangan[4], however, finally set the controversy at rest and proved that these were seal dies and not amulets. A large number of seal-impressions of the historical period have been unearthed but the number of seal-dies of that period that has come to light is comparatively very small. Taking Nalanda as an example, we find that the number of seal-impressions unearthed runs into hundreds while the seal-dies found at the site number barely two.[5] Similarly, Basarh has yielded several hundred clay-impressions of *Śreshṭhi-Sārthavāha kulika-nigama* seals but not a single die from which these impressions were made.[6]

MATERIAL OF SEALS

Steatite was the most commonly used material for making seals during the Harappan period[7], but it has been rarely used for seal-manufacture in the historical period. Some faience seals and sealings are also known in the former, but such ones are conspicuous by their absence in the latter. On the other hand, such stones as quartz, carnelian, crystal, etc., used as materials for the manufacture of seals in historical period did not find favour with the Harappan seal-makers. As for the use of metals, only two silver seals of Harappan times have come to light.[8] But, for the historical period, we have a number of seals of different metals such as gold, silver and copper.

SHAPE OF SEALS AND SEALINGS

Most of the Harappan seal-dies are square or rectangular in shape; but in the historical period such shapes are rare—circular or eliptical shapes being the general rule. Seals with bottle or pyramidal shape being the general rule. Seals with bottle or pyramidal shape to be met with in historical period are not to be found among the Harappan ones. The perforated knob, a very common feaure of the Harappan seals, is not so common in the case of seals of the historical period. A very few seals of cylindrical shape have been found in the Harappan culture (incidentally cylindrical seals are quite commonly met with in Mesopotamian sites of Harappan and Pre-Harappan date). Such seals are, however, absent in early historical period.

DEVICE

Most of the seals of the Harappan and historical periods portray a device—generally an animal figure—together with a legend; but a few ones of both periods bear only inscriptions. There are some instances among seals of both these periods where more than one animal has been depicted together. In a Harappan seal,[9] as many as six animal figures—an elephant, a tiger, a rhino, a buffalo and two deer have been portrayed alongwith the figure of a deity (?) in the centre and the legend above. In another, a deity (?) is shown in between two branches of a *pipal* tree and below are portrayed seven female figures. There is no seal of historical period which portrays so many animal or human figures together.

The bull, generally of the humped variety, is frequently met with on the Harappan as well as historical seals, many of the figures in both being of high artistic quality. The majestic depiction of the bull on the Harappan seal illustrated in pl. VXI, no. 337 of Marshall's *Mohenjo-daro and the Indus Civilization*[10], is matchless in design and execution and none of the representations of bull figures on seals of historical period can match it in artistic excellence. Further, the short-horned bull met with on several Harappan seals is rare on the historical seals. The figure of a unicorn is the most common device on the Harappan seals. This device is conspicuous by its absence on seals of historical period. On the other hand, lion and horse figures which feature on some historical seals are not met with on the seals of the Harappan period. Some scholars are of the opinion that the Harappans, at least those of Harappa and Mohenjo-daro, were not familiar with these two animals.[11] Representation of dog is absent on the seals of both periods. The rhino while featuring on some Harappan seals is not represented on seals of the historical period.[12] The Harappan seals portray realistic and spirited buffalo figures. This animal, however, does not find representation as an independent single device on the seals of the historical period.[13]

On the Harappan seals, animal figures are generally shown either with a peculiar double-topped vessel (identified by some as incense burner), or with a trough. Such representation is not met with on seals of the historical period.

Human figures on Harappan seals are either stylized or merely caricatures. By contrast, the ones on the seals of the historical period are more life-like, and often quite artistic.

Man-and-bull fighting scences occur on a few Harappan seals[14] and at least on one sealing of the historical period from Basarh.[15] But the device of a man fighting two tigers, one on either side (a motif generally taken to be an adaptation of Sumerian motif-Gilgamesh fighting lions), seen on some Harappan seals, is not met with on the seals of the historical period.

Some Harappan seals have quaint figures which combine anatomical features of different animals. There are figures which are part bull, part goat and part elephant.[16] There are a few others which are shown with many heads of one and the same animal on one body. Such strange figures are not met with on the seals of the historical period. Therianthropic figures, however, occur alike on the seals of Harappan and historical periods. It is difficult to identify such figures on Harappan seals with any amount of certainty, but those on the seals of the historical period can be easily identified variously as *Gaṇeśa, Garuḍa, Narasiṁha,* and the representations of the Vedas.

There are certain representations on the Harappan seals which may be interpreted as narrative scenes.[17] However, such representations are rare on the seals of historical period. Devices on certain historical seals, as indicated by the iconographic features and legends on them represent deities; and some devices on Harappan seals are probably of similar nature.

With a few exceptions, the animal figures on the Harappan seals (as they would appear in impressions) face right while the animals on the sealings of the historical period face left. This is an imprortant clue for determining the direction of writing on the Harappan seals. In portraying an animal figure, the artist generally first draws the head and then other parts of the body. Since the head of the animal figure (as we would have in the impressions of the dies) almost always faces right, it would appear that in drawing the animal figures the movement of the hand was from right to left. This would indicate that the Harappan script was written from right to left. Since Brāhmī characters are written from left to right, the animals on his historical seals naturally face left.

Of auspicious symbols, the celebrated *svastika* occurs on both types of seals. If the Harappans, as is generally believed, were non- and pre-Aryans, than the motif, contrary to the general belief of its being typically Aryan, should be taken as of pre-Aryan and of non-Aryan origin. *Nandipāda, śrīvatsa,* vase-and-foliage, *śaṅkha, triśūla,* 'hill' symbol, etc., are some of the most common devices on historical seals and are also met with in early Indian monuments and antiquities. Apparently it seems that their origin lies in the hoary past. It must, however, be noted that these symbols do not occur on the Harappan seals.

SCRIPT

The legends on historical seals are mostly in Brāhmī script and only a few are in Kharoshṭhī script. On a very few historical seals, the legends occur in both Brāhmī and Kharoshṭhī. There is a unique seal on which the legend, a personal name, has been written in three scripts—Brāhmī, Kharoshṭhī and Greek.[18] The Harappan script remains undeciphered to this day, notwithstanding several attempts and claims of its decipherment by certain scholars. But from the examination of some inscribed letters overlapping on others on a potsherd, B.B. Lal has rightly concluded that the direction of Harappan writing, at least in that case, is from right to left, like Kharoshṭhī.[19] The possibility that the script might have been boustrophedon (lines written alternately from left to right and right to left) at least in some cases, has also been pointed out by some scholars. Interestingly enough, a few of the historical seals, too, bear the Brāhmī legend in boustrophedon style.[20]

From a study of seals of the historical period, a gradual evolution of the Brāhmī script, is discernible. As for the Harappan script, it does not seem to have undergone any marked changes, at least at Harappa and Mohenjo-daro, through the many centuries of the existence of these cities, during which it was in vogue.[21]

SUBJECT MATTER OF THE LEGENDS

The legends on the Harappan as well as historical seals are generally one-lined, but examples of two- or three-lined ones are also to be met with in both. Some seals of the historical period detailing genealogy or containing the Buddhist formula—*ye dharmā hetu prabhavā,*[22] etc. bear many-lined legends. Legends on Harappan seals, however, never go beyond three lines. The legends on the seals of the historical period pertain variously to religious and educational institutions, guilds, government officers and officials, and also private individuals. It is difficult to identify the owners in case of the Harappan seals. Incidentally the longest inscription in the Harappan script, so far seen in any medium contains not more than eighteen letters. Further, since the legends on the Harappan seals are only a few letters long, there is hardly any possibility of these seals containing detailed information of any kind. Probably these inscriptions bear the names of officers or of economic or religious institutions or private individuals with or without an epithet (prefixed or suffixed). The great variety in legends inscribed with the same animal figure on different Harappan seals would suggest that, as in the case of the seals of the historical period, the inscriptions do not refer to the names of the animals portrayed thereon.

HARAPPAN AND HISTORICAL SEALS OUTSIDE INDIA

It is interesting to note that a few Indian seals of both Harappan and historical period have been found in countries outside India. The findspots of the Harappan seals lie in Mesopotamia,[23] while those of the historical period in countries of South-east Asia.[24] Harappan seals seem to have reached Mesopotamia as a result of trade and commerce. (It is also likely that some of them were manufactured locally by Harappan traders residing there). Seals of Indian origin of historical period found in countries of South-east Asia mostly bear religious mottos or moral exhortations. It would seem that they were taken there by missionaries and religious minded persons. (Some of them might also have been manufactured by such Indians settled there).

GENESIS OF THE SEALS OF HARAPPAN AND HISTORICAL PERIODS

The pre-Harappan sites of the Indo-Pakistan sub-continent have not yielded seals. As such, it may be inferred that the Harappans did not learn the fashioning and use of seals from pre-Harappan cultures of the sub-continent. In Mesopotamia, seals were known in culture antedating the Harappan culture as well as those contemporaneous with it. But there is a marked difference between the Harappan and Mesopotamian seals in shape, size, script and motifs, and therefore, direct borrowing is ruled out. The Harappans, who had trade contacts with Mesopotamian cities might have borrowed the idea of seal-making from the Sumerians, adapting it to their needs and ends.

As seen above, there is a considerable difference in material, shape, script etc. between Harappan and historical seals. Furthermore, there is a gap of more than a millennium between the end of the Harappan culture (and even the Jhukar culture which also had a few seals) and the beginning of the use of seals in the historical period.[25] Hardly any specimen that can be given the name of a seal has been found in India relating to this long intervening period. The obvious inference would be that the tradition of seal-making was lost in India after the extinction of the Harappan culture. It seems that the art of seal-making in India was borrowed from people across north-western frontiers of India, viz. the Persians and Greeks. Be that as it may, the creative genius of Indian seal-maker did not blindly imitate the foreign models and their creative genius fashioned glyptics which show distinctly Indian features in their design and execution.

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6. *ARASI*, 1903-04, p. 81 f.
7. Mackay, *op.cit.*, p. 347.
8. *Ibid.*, p. 348. The copper-tablets which have been unearthed in considerable number could not have been used as seals.
9. Marshall, *op. cit.*, I, pl. XII, no. 17.
10. Commenting on the artistic excellence of the portrayal of the Harappan bull, Marshall says that the artist 'has tempered realism with breadth of treatment and restraint and has brought the dignity of the animal in a way that only the eye and hand of a fine artist could have done .. . ..' (*Ibid.*, I, p. 43).
11. Horse seems to have been known in the late phase of Harappa culture at Lothal (Rao, *Lothal and the Indus Civilization*, p. 89). Horse's bones found in the upper levels at Mohenjo-daro are taken by many scholars as of post-Harappan date.
12. The Rhino, however, finds representation on a variety of gold coins of Kumāragupta I of the Imperial Gupta dynasty.
13. Figures of buffalo, however . occur on historical seals representing Mahishāsuramardinī.
14. See *ARASI*, 1934-35, pp. 95, 98 and 99, fig. 3 and 6.
15. *Ibid*, 1903-04, p. 106, pl. XLI, no. 17.
16. Mackay, *op. cit.*, pl. XCI, p. 249.
17. *Ibid.*, pl. XCIII.
18. Rapson, E.J., *JRAS.*, 1905, p. 809, pl. facing p. 814.
19. Lal, B.B., *Antiquity*, Vol. XL, pp. 52-55.
20. See *JBORS*, XX, pp. 1-2.
21. S.R. Rao, however, points out that there are indications of evolutionary change in the Harappan script in the Saurashtra region. ('Indus Script Deciphered', *Illustrated Weekly*, Vol. 92, 50, pp. 21-25; *Lothal and the Indus Civilization*, pp. 128 ff).
22. See Eg. *ARASI.*, 1911-12, p. 50; *ARAS.*, 1904-05, pp. 90-91.
23. See Wheeler, *Indus Civilization*, 3rd ed., pp. 117 ff. It may be mentioned in passing that the find of some of these seals in approximately datable archaeological contexts at different sites of Mesopotamia, provide very important evidence for dating Harappa culture.
24. Coedes, G., 'Fouilles En Cochinchine', *Artibus Asiae*, X, pp. 193-99.
25. Of such seals or likely seals as may be dated between the Harappa and historical periods, mention may be made of an inscribed cylinder seal now in Nagpur Museum, an inscribed clyinder seal from Maski, an inscribed seal from Pandu Rajar Dhibi, uninscribed sealing (?) from Kayatha and a doubtful stone seal from explorations at Minati. Of these, the Maski and Nagpur Museum seals have been taken as suggestive of their Babylonian origin, and the Pandu Rajar Dhibi specimen has been claimed as of Cretan origin.

IX

The Neolithic Pattern of North-Eastern India

T.C. Sharma

INTRODUCTION

Following V.D. Krishnaswami,[1] all the subsequent writers on Indian Neolithic tried to reconstruct the pattern of Neolithic cultures of India by dividing the country into three cultural zones such as North Indian, South Indian and Eastern Indian Neolithic provinces or zones, each showing manifestations of one or more specialised traits distinctive of each cultural zone.[2] In this scheme, although Assam* is included in the Eastern Neolithic zone along with Bihar, Bengal and Orissa, the archaeological data available from this zone suggest that the neolithic culture of Assam is characterised by its own regional peculiarities which distinguish it from those of other parts of India. On the basis of material evidence presented below, it seems appropriate to propose a separate neolithic zone for Assam, which we may call 'Northeast India Neolithic Culture'. The distinctive features of Northeast Indian or Assamese neolithic culture are the tanged or shouldered axes or adzes, faceted tools or quadrangular axes or adzes and the cord-marked pottery, which are typical or Eastern Asiatic Neolithic cultures. Though not a common type in other parts of India, sporadic occurrence of shouldered celts has been reported from Chota Nagpur and Dalbhum in Bihar, Baidyapur in Orissa, Lower Godavari and Hyderabad in Andhra Pradesh and in North Karnataka.[3] In none of these areas, however, have the shouldered celts been found in stratified neolithic contexts. In view of this, it can safely be assumed that the shouldered celts found towards west of Assam are spillovers from their centre of characterization in Assam which culturally belongs to the great Eastern neolithic zone, as pointed out by Worman.[4]

Having established Assam as a distinctive neolithic zone in India, we are now in a position to examine the neolithic traits of Assam in details. Among the different regions of Northeastern India, only three areas, viz., (1) The Garo Hills; (2) The North Cachar Hills and Kamrup district; and (3) The Naga hills provide sufficient data for analysis (Fig. 10). Stratified materials are available only from the Garo Hills, North Cachar hills and Kamrup district. From other areas, there are only stray finds of smooth and ground stone tools in limited quantities. In view of this, Dani's scheme[5] to study the neolithic culture of Assam by dividing the State into six cultural zones, seems to be overambitious. The available data suggest that the neolithic cultures of N.E. India could be understood better by dividing the area into at least three neolithic zones viz., (*i*) the Garo hill zone; (*ii*) the North Cachar hill and Kamrup zone and (*iii*) the Naga hill zone.

*Here the term 'Assam' means undivided Assam as it existed before 1965. The State is now divided into several small States such as Meghalaya, Manipur, Mizoram, Nagaland, Arunachal and the present truncated State of Assam. The undivided Assam is now known as Northeastern India. The term Assam, wherever, used in this article may be taken to mean N.E. India.

1. *The Garo Hill Zone* : (*Fig. 11*)

This zone lies at the southwesternmost part of the region bordering the plains of Bangladesh. In respect of Stone Age cultures, this zone is better known than any other parts of N.E. India. Several Stone Age sites have been discovered in this area. Neolithic artifacts are so numerous in this area that they could be found almost in every village inhabited by the Garos, who believe that the smooth stone tools are the 'hoes of the God' (or *goera gitchi* in Garo dialect - goera=God; gitchi=hoe).[6] They are also frequently found upon any stretch of bare ground on the hill slopes, where they are usually exposed as a result of soil erosion when the vegetative cover is removed to prepare the fields for shifting cultivation.

Innumerable stray find neoliths have been collected from this zone by several investigators since the third decade of this century (Dani[7], Goswami[8], Sharma[9]). The majority of the stone implements were collected from Molmegiri, Dilmagiri, Rongjeng, Rongram, Chitra Abri, Ranchangiri, Ronchigiri, Ringigiri and Selbalgiri. Nevertheless, the explored and excavated sites are very few. So far only two sites viz., Chitra Abri and Selbalgiri have been explored, and a test digging was carried on at Selbalgiri[10].

The peculiarity of the Garo hills neolithic stone industry was this that it developed around the exploitation of a locally available resource for the manufacture of stone tools. The raw material was available in the form of intrusive igneous rock which is identified as dolerite. In the absence of other suitable rocks, this material was extensively utilized for making all types of neolithic implements. Because of heavy weathering which resulted in the formation of a sandstone like patina over the surface of the tool, Dani[11] wrongly identified the rock as sandstone. Similarly, the identification of the rock type of Renchangiri shouldered celts by Goswami and Bhagabati[12] as fine grained granite is also based on wrong information. The characteristic weathering of the rock, the types and forms of the tools make the Garo hills neoliths easily distinguishable from those of other regions of Assam.

The typological classifications of the Garo hills neoliths proposed by previous writers[13] appear to have been based on ill-defined typological features, which resulted in the creation of innumerable types and varieties which are not only typologically inaccurate, but also inappropriate. In the classification proposed by us, about 85 per cent of Garo hills neoliths could be grouped under two types, viz., (1) the flat celts or hoe-blades; and (2) the tanged or shouldered celts. The flat and thin size of the tools with their normally unifacially ground cutting edge make them suitable as agricultural or horticultural tool (namely hoe), and unsuitable for using them as axes. It may not be only a supernatural belief for the Garos to identify the neoliths as 'hoes of the God', it might have arisen from the actual practices to which the neolithic celts were put within the living memory by the primitive shifting cultivators of the Garo hills when iron was not readily available in this isolated area. In fact, the modern iron hoe-blade of the Garos is an exact copy of the stone celt.

The non-tanged flat hoe-blade type is the dominant celt type in the Garo hills, its frequency being 52.2 per cent; and the tanged type comes second in the rank with a frequency of 33.7 per cent. Both the types after their initial shaping by free flaking or chipping, were ground either thoroughly or partially to very smooth and gently curved faces and sides which gave rise to lenticular cross-section of the blade. The shouldered celts of the Garo hills have their own peculiarities. They are characterised by very shallow and sloping shoulders and broad and flat tang. The crudely shaped shouldered celts prompted Dani[14] to think that the Garo hill type is a degenerated variety of the well-cut rectilinear type. It may only be a freak of his imagination; otherwise, where is the reasons to think that the crude and the earlier variety is the degenerated form of the developed variety ? On the other hand it is easy to explain the crude feature of the Garo hill shouldered celt by taking into account the part played by the raw material. The stone tool makers of the Garo hills had to work on a very hard igneous rock which is not amenable to grinding into angular shapes. Rectilinear shouldered celts are absent in this zone. Quadrangular axes showing square-cut forms are also very rare. The few examples of this type found in this area are made on softer sedimentary rocks.

The neolithic pottery of the Garo hill zone is handmade and plain cord-marked pottery has not yet been found in this region. The occurrence of microliths below the neolithic level at Selbalgiri is very

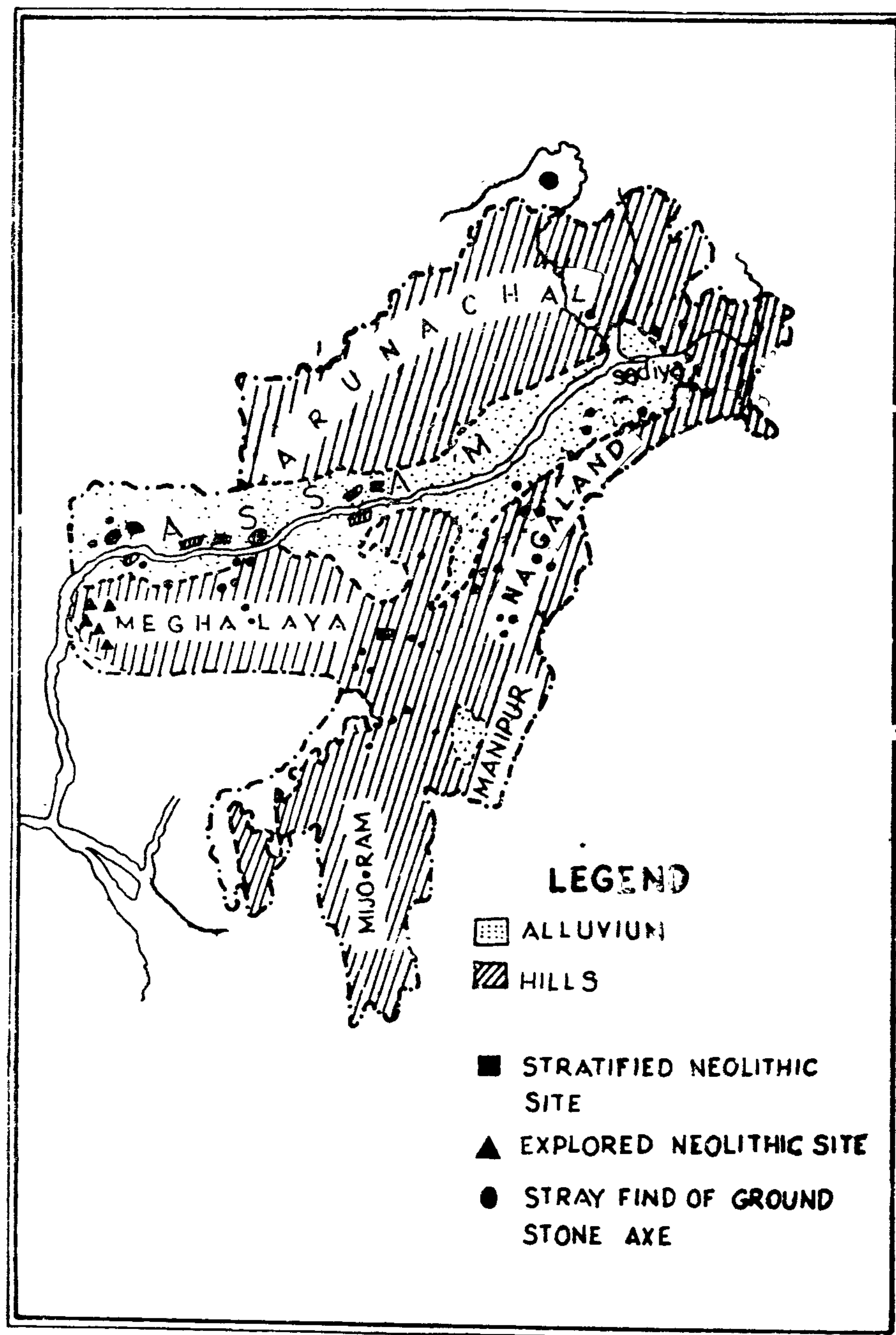


Fig. 10. Map of North-East India showing distribution on Neolithic finds.

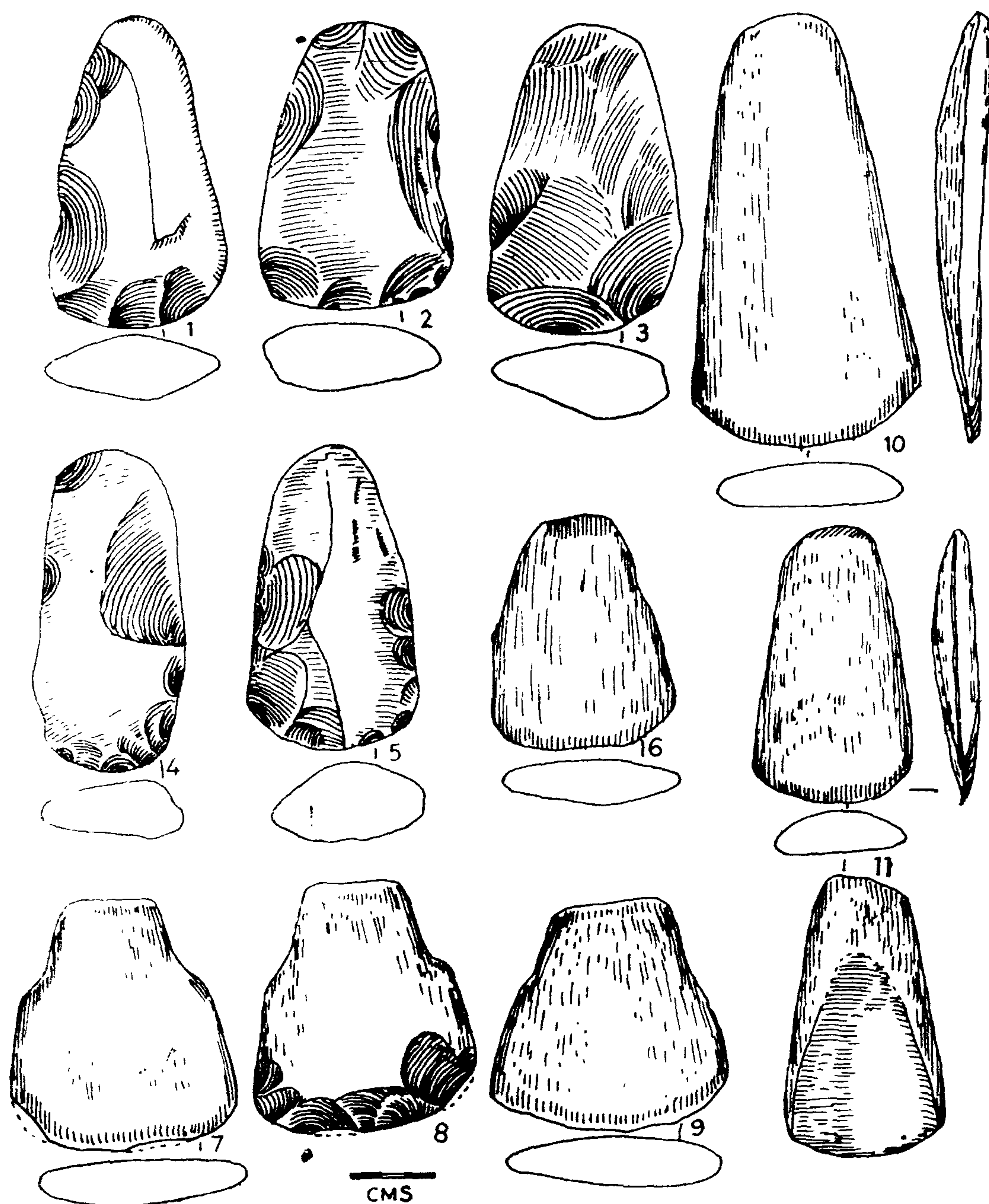


Fig. 11. Neolithic stone implements from the Garo Hills Zone : Nos. 1-5, Chipped celts; 6-9 Shouldered celts; 10-11 Ground celts.

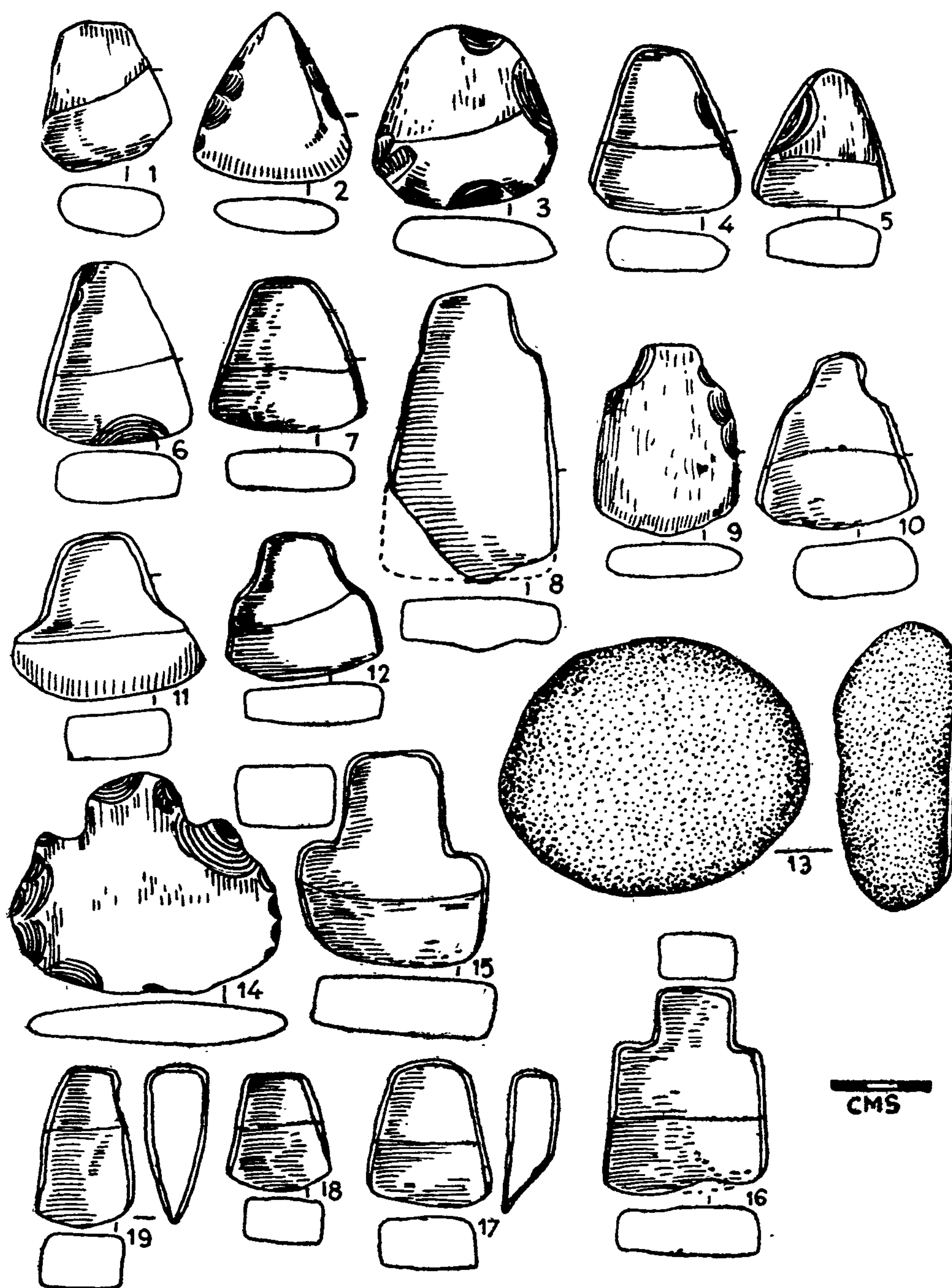


Fig. 12. Neolithic stone implements from the north Cachar Hills Zone : Nos. 1-3 Small celts: 4-7, 17-18 quadrangular adze; 8-12, 14-16 Shouldered celts; Stone Muller; 19 Chisel.

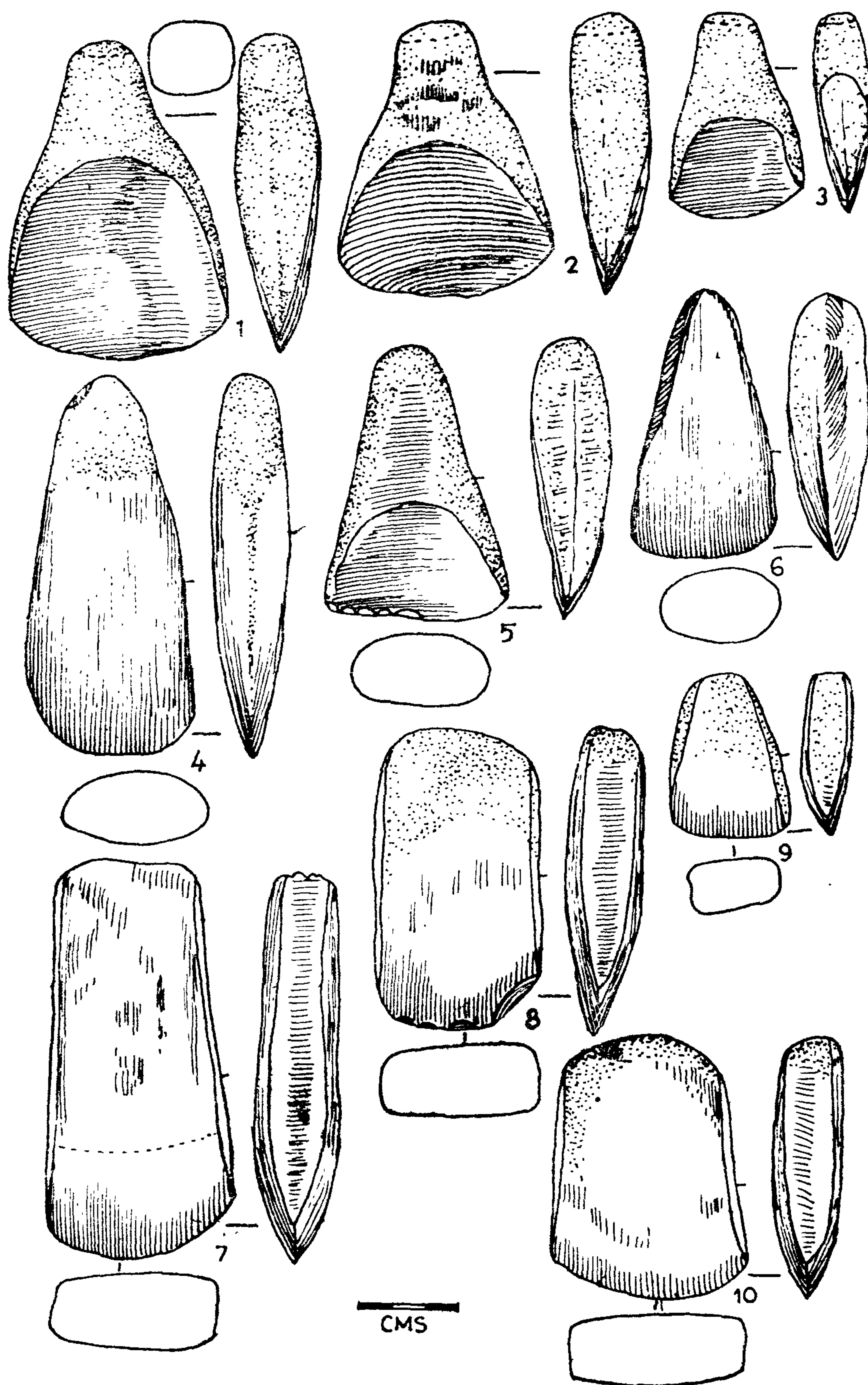


Fig. 13. Neolithic stone implements from the Naga Hills Zone : Nos. 1-3 Shouldered celts; 4-6 pointed butt axes, 7-10 Quadrangular axes.

interesting. This is the only site in the whole of N.E. India where microliths have so far been found. It is not yet clear whether the microliths found in this site form a part of the neolithic stone industry. In view of its cultural significance the site is to be thoroughly excavated. There is, however, a possibility to show that the microlithic industry, which was developed earlier than the neolithic settlers occupied the site, might have persisted into the neolithic period, as evidenced by the presence of a microlithic core at the site. In that case, Garo hills zone may yield the cultural traits of a contact zone lying between the eastern Asiatic and Indian neolithic. The geographical location of the Garo hills also suits well to think in this line.

2. *North Cachar hills and Kamrup Zone* : (*Fig. 12*)

This zone lies between the Garo hills and the Naga hills zones. The source material of this zone comes from two excavated sites at Daojali Hading in the North Cachar hills district and Sarutaru in Kamrup district. Further a large number of surface find neoliths are also known from this zone. The neolithic stone industry of this zone is based on the maximum utilization of indurated shale, a locally available sedimentary rock. Other sparsely used raw materials in this zone are sandstone and fossilwood. An edge ground chisel made on fossilwood was also found in the excavated site at Daojali Hading. Among the surface finds some elegant specimens of axes made of Jadeite are also seen. These specimens must have reached this area from foreign sources, most probably from China, as Jadeite is not locally available. Except the Jadeite axes which were made by chipping and edge grinding techniques, all other neoliths found in this zone are made by chipping and grinding techniques. Some very fine specimens of shouldered celts of rectilinear variety are known from this region including two specimens from the excavated site at Daojali Hading. The technique of sawing was applied in producing sharp angularity of these tools. It is perhaps unjustified to think of the use of wire-saw in this neolithic context, as postulated by Dani[15] and Allchin[16]. It would be appropriate in this context to think in terms of the neolithic sawing method in which the saw, which could be a string or any kind of vegetative fibre or a silver of bamboo or a thin flake of sandstone, is used as a vehicle of the abrading process achieved by applying sand. The dominant technological tradition of the neolithic stone industry of this region consists of grinding to the flat faces which gave rise to the angularity of their forms. This is the main distinguishing feature of the neolithic industry of this zone. However, the convex grinding process producing tools with lenticular cross-section also exists side by side.

Typologically the most conspicuous feature of the neoliths of this zone is their small size which ranges from 2.9 cm to 5.9 cm in length, 3.6 cm to 6.1 cm in breadth and 0.7 cm to 1.7 cm in thickness. The most remarkable feature of the neoliths of this zone is, however, their length-breadth ratio; the breadth of the tool is found greater than the length in about 38 per cent in our collection. This typological feature presupposes the adoption of a specialized hafting method called sleeve haft in which the tool is mounted into the hallow of a bone or a horn or a socket cut into a wooden sleeve which is then mounted to a haft.

Two types of celts occupy dominant position in this zone. They are : (*i*) quadrangular type of axes and adzes, and (*ii*) the shouldered or tanged celts, the frequency of their occurrence being nearly 70 per cent of the total assemblage of this zone. Among these two types, the preponderance of the shouldered celt is the highest (37.4 per cent); and that of the quadrangular type is 32 per cent. Among the shouldered celts, there is a small percentage of the curvilinear variety (16 per cent); a very high frequency of an intermediate form, we call 'North Cachar hill type' (60 per cent), and about 24 per cent of the shouldered celt belong to the rectilinear variety. Thus, this zone yields the highest frequency of square cut shouldered celt among all the regions of N.E. India. The other distinctive type of neoliths of this zone are the quadrangular adzes and the splayed axe, their frequencies being 7 and 3 per cent respectively in the total collection.

The excavations at Daojali Hading and at Sarutaru yielded pottery in association with the neoliths. Further, Daojali Hading assemblage includes a large number of grinding stones, stone rubbers or mullers, pestles and mealing troughs. At Daojali Hading about 95 per cent of the pottery belong to the cord-mark ware which is a dominant neolithic pottery in China and Southeast Asia.[17] Similarly, the dominant

pottery at Sarutaru is also of the cord-mark variety[18]. It is now clear that the dominant neolithic tradition of the North Cachar hill and Kamrup zone consists of shouldered celts, quadrangular adzes and cord-mark pottery.

None of the splayed axes found in this area comes from any archaeological contexts. They come to us as collection from the homes of the tribal communities in the North Cachar hills. The splayed form is not common in stone tool technology. This form is usually observed among metal tools—copper, bronze and iron. The stone splayed axes could therefore be regarded as imitation of metal tools, about which there are innumerable examples in the primitive world. However, the significant point is that this type of technological imitation presupposes the contact of the neolithic people with the metal using communities.

3. *The Naga hill zone : (Fig. 13)*

This zone lies at the easternmost part of the region along the Burmese border. All the source materials from this zone come as surface finds. Stratified neolithic site is yet to be discovered in this zone.[19] The chief raw material for neolithic celts in this zone is diorite or serpentine of greenish colour. This rock is locally available as intrusive veins through the tertiaries., Although sedimentary rocks, such as shale, slate and sand-stone are abundant in this zone, these were sparingly used for making stone tools. The weathered blocks of diorite occurring in the form of pebbles in the river bed were preferred. The dominant tool making technique in this zone consists of pecking which is a distinctive feature of the Naga hill zone. The pebbles, initially shaped by preckling, were given final shape by grinding at the cutting edge. In some cases, the grinding is applied to smoothen major portion of the blade, but in no case the pecked tools are thoroughly ground. The neoliths made on diorite never show faceted or rectilinear outline; they are generally rounded in form and give oval cross-section. Only a very small quantity of tools made on shale or sandstone shows angularity in form. Some large axes of sandstone resembling the form of a cleaver, were flaked all over and finished by grinding at the cutting edge. This type may be taken to represent an earlier tradition which is known as Hoabinhian in Southeast Asia. Some elegant Jadeite tools are also known from this area. As in other parts of N.E. India, in the Naga hill also they are imports from foreign sources, most probably China.

Typologically, the neoliths made on diorite fall mainly into two types, viz., (1) the triangular axes with pointed butt; and (2) the crudely shouldered tanged axes. The shouldered celts occur in the highest frequency (55 per cent); and the frequency of the pointed butt triangular axes is 30 per cent, the rest *i.e.*, 15 per cent is made up of other varieties of neoliths, the notable among them consists of Jaedeite axes and rectilinear shouldered celts. Neolithic pottery and other associated materials are yet to be found in the Nagaland.

MANIPUR, ARUNACHAL, MIZORAM AND OTHER PARTS OF ASSAM

Some neoliths have recently been reported from Manipur.[20] Quadrangular types are common in this area. Tools showing rounded sides and oval cross-section also occur. Some Naga hill types are also found in this state. These are all surface finds. Stratified neolithic materials are yet to be discovered in Manipur. Neolithic pottery has not so far been found in this area.

Some surface find neoliths have also been reported from Lohit and Kameng districts of Arunachal Pradesh.[21]

The neoliths from Lohit district formerly called Sadiya Frontier Tract, now preserved in Pitt Rivers Museum, Oxford, are very characteristic. A typical example of Hoabinhian edge ground axe has been found in this area. The hog-back type of adze showing a flat under surface and a sharply convex upper surface; the unbevelled quadrangular adze; the slender chisel of Jadeite are the characteristic types of this area.[22] The neoliths from Kameng district which lies along the border of Bhutan and Tibet include edge ground axes and curvilinear shouldered celts among other common types. Although shouldered celt does not occur in the collection from Lohit district (Sadiya Frontier Tract)[23], this may be due to spotty collection rather than their real absence in this area.

Archaeologically Mizoram is still unknown. So far only one neolith is known from this area. It is a large, flat and thin axe of quadrangular type having two completely and one incompletely bored holes on the poll. The incompletely bored hole shows that the boring was done with a hollow borer which may be a piece of reed or a piece of small bamboo. This is a typical neolithic method of boring which is an abrading process in which the borer is used as a vehicle of the abrasive which is usually sand.

Among other districts of Assam, the Darrang district has yielded a very important neolithic assemblage which was found while ditching in a tea-garden at Biswanath.[24] Here the shouldered celts occur in a stratified context in association with grooved or belted stone hammers. Grooved stone hammers are very rare in India as well as in Southeast Asia. This type is, however, common in China, the nearest source being in Szechwan, the southwesternmost province of that country.[25] This example could, therefore, be taken as an evidence of Chinese neolithic influence over northeast India.

It is now clear from the above analysis that despite some regional variations as dictated mainly by environmental factors, the neolithic patterns of different parts of North-eastern India not only display homogenous cultural traits, but also suggest a personality distinctive of the other neolithic zones of India.

ORIGIN, AFFINITIES AND CHRONOLOGY

Soon after the discovery of shouldered celts, several scholars tried to show the influence of eastern Asiatic Neolithic over Assam.[26] Haimendorf[27] who tried to link linguisic and Archaeological data, thought that the Late neolithic culture with distinctive eastern affinities was brought to India by the Austro-Asiatic group of people in their migration to India during prehistoric periods. Mortimer Wheeler,[28] however, is of opinion that it is a mere guess-work to link the arrival of neolithic traditions in northeastern India with that of Austro-Asiatic language from Southeast Asia. The problem of origin and affinities of the Neolithic culture of Assam was clearly brought to focus by E.C. Worman, who writes, "the eastern half of India belonged to a fairly large South and East Asiatic area throughout which the evolution of post pleistocene prehistoric cultures was more or less similar. In the early periods, this area seems to have included much of India, Burma, Southeast Asia and Southern China. In the later ones it was aparently confined in the west to the easternmost provinces of India, but expanded in the east to include parts of north as well as South China". He further says, "on the basis of their typology and distribution, Indian smoothed stone celts of 'neolithic' type regardless of their cultural affiliations, appear to have derived from the eastward. Chronologically they seem to have been introduced into the country at different dates".[29] Mortimer Wheeler is also of opinion that the east Indian types of celts were not derived from the West, rather they were introduced to India from the East, probably from central China.[30] After the discovery of stratified neolithic assemblage consisting of shouldered celt, quadrangular adzes, and cord-marked pottery at Daojali Hading, we are now on a firm ground to establish the affinities of neolithic culture of Assam with that of South China and Southeast Asia.[31] In this context, we should also take note of the observations of Dr. Sankalia, who writes, "At present it has been concluded that the Assam neolithic primarily drew its inspirations from Southwestern China and Indo-China, and the Daojali Hading assemblage was comparable with the Late Bacsonian of Southeast Asia. The major role was played by the Upper Yangtze valley of Szechwan and Yunnan in developing the neolithic culture of Assam.[32]

The eastern Asiatic bias of the neolithic culture of Assam should not, however, prevent us from accepting the fact that Assam, being a part of the Indian sub-continent, has shared the cultural life of the sub-continent throughout the ages. The discovery of the handaxe-cleaver industry as well as the flake and blade tool industry of the pre-neolithic periods in several parts on N.E. India,[33] showing very clear Indian and Western affinities, as a strong case to argue that Assam did not remain totally cut off from India during the neolithic period also. It is true that Assam was able to develop a regional cultural identity during the neolithic period, but it will be wrong to assume that the stream of cultural diffusion was flowing only from one direction *i.e.*, from the East. Although the evidences so far available are not

conclusive, nevertheless these could be taken as a reliable indication of an influence of Indian neolithic tradition over Assam, which only future researches would be able to confirm.

As early as 1928, Hutton pointed out that the triangular stone axes of the Naga hills are 'practically identical in type, with celts found in South India. In support of his view he argues that there is a strong cultural similarity between the megalithic culture, particularly the cist burrials found in the Khasi and Jaintia hill of Meghalaya and that of Peninsular India.[31] Further, the discovery of microliths and plain handmade neolithic pottery at Selbalgiri in the Garo hills, which is geographically the most suitable area among all the regions of N.E. India, may give us more clues regarding some influences of South Indian neolithic culture over N.E. India. In this context, we may take note of another body of evidence coming from the Santal Parganas. Because of the presence of typical Indian neolithic axes viz., the pointed butt axes, in association with eastern Asiatic types, F.R. Allchin thinks that the Chota Nagpur plateau forms a contact zone of Indian and Eastern neolithic traits.[35] Among all the regions of India, the Santal Parganas give us a neolithic assemblage having closely comparable types with those of N.E. India.[36] On the basis of this evidence, we could reasonably argue that the contact zone might have extended further east to include Assam, Meghalaya, Nagaland etc., along with the Santal Parganas.

The main crux of the problem of the Neolithic culture of Assam is however its chronology. It is unfortunate that none of the neolithic sites of this regions has yet been dated by absolute dating methods. The absence of reliable chronological base has, therefore, compelled us to adopt cross-cultural as well as conjectural methods. Dani, who seems to have been influenced by the wrong conception that Southeast Asia including N.E. India form a region of cultural backwater, where growth and development of human culture followed a retarded and protracted course, saw the beginning of the neolithic culture of Assam within the historic period.[37] It is, of course, true that neolithic technological traits and lifeways still persist in the isolated tribal areas of N.E. India. Godwin Austen[38] reported that the Kukis of the North Cachar Hills were using stone celts set into a handle as hoes till the middle of the last century. Further, the shifting cultivation practised by the hill tribes of this region could be regarded as continuation of the neolithic tradition. Nevertheless, the continuity of ancient traditions could hardly be used as an evidence of late beginning of neolithic period in N.E. India. On the other hand Mortimer Wheeler[39] believes that at about 1000 B.C. or a little later neolithic farmers from Southeast Asia began to infiltrate into the hill jungles of Northeast India. The chronological classification of the neolithic artifacts of Assam proposed by Allchin includes : (1) an Early Neolithic phase, and (2) a Late Neolithic phase, the former showing possible relation with Indian groups, and the latter having 'very definite South Chinese and Southeast Asian affinities'[40]. Sankalia, while discussing the chronological problems of the neolithic culture of Assam, says that situations identical to Southeast Asia are obtained in Assam[41].

In the light of the recent discovery of an independent nuclear area of early plant domestication in Thailand, and the chronological sequence obtained there by absolute dating method, we may now give a fresh look into the problem of dating Northeast Indian neolithic culture which shows close affinities with those of Southeast Asia and South China. The time range from 2000 B.C. to 1200 B.C. derived from archaeological data from Spirit cave, Non Nok Tha and Ban Kao in Thailand provides the chronological frame of dating post pleistocene stone age cultures in Southeast Asia[42]. If we accept the views of Worman quoted above, that the easternmost provinces of India belonged to a fairly large Southeast Asiatic zone, the chronological sequence developed in Thailand may also be applicable to a certain extent in Northeast India. Thus allowing a few thousand years as the time required for the spread of neolithic tradition from Southeast Asia to Northeastern India, we may propose 5000 B.C. for the Early Neolithic phase, and 2000 B.C. for the Late Neolithic phase of N.E. India. However, we must admit that unless radiocarbon dates of the neolithic sites of N.E. India are available, our chronological scheme would remain at the conjectural level.

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X

The Chalcolithic Settlements in Bihar

L.A. NARAIN

The excavations t Sonpur (Gaya district), Chirand (Saran district) and Oriup (Bhagalpur district) in Bihar have unveiled a clear picture of the life of the chalcolithic period. As the evidence stands, the people during this phase practised planned agriculture, domesticated animals and led an organised life. Their tools and weapons were still largely made of stone, bone and clay. They had, however, known the use of copper. The date of this cultural phase ranged in between 1650 B.C. and 700 B.C.

Before we proceed on to examine in detail the characteristic traits of this culture, it is worthwhile to understand the physiographical settings of the three chalcolithic sites. This may enable us to know the extent to which the economic activities of the community were limited by the external environment.

Sonpur is on the bank of the Yamuni river which owes its origin in the Hazaribagh plateau. It is a rain-fed river with many sharp bends. The average rain fall in the area is 44 inches. During the monsoon, the river gets enough water and the run-off spate assumes turbulent speed due to the small span of the river and its sharp gradients. The excess water overflows its bank resulting in the formation of many water pools in the back-swamp areas. The vast stretch of land along the banks is more or less undulating which gets inundated and a sheet of fresh alluvium is deposited. Not very far from the site, about 8 miles to the north east, is an outcrop of the granite rock known as the Barabar and the Nagarjuni hills.

Chirand and Oriup on the other hand are in the vast alluvial tract of the Ganga. The average rainfall in the area is 44.5 inches. In May and June when the snow melts and the monsoon sets in, the Ganga gets water much beyond its capacity to contain its bed. The excess water inundates the adjoining areas and spreads a layer of fresh alluvium every year.

Geologists believe that in the last 10,000 years (Holocene period), no severe climatic change has taken place. Assuming that the temperature, humidity and the rainfall were more or less the same as at present, the areas around the sites must have been favoured with the luxuriant growth of jungles where the animals of open country forms must be roaming about. In the back swamp areas of the rivers, reed, sedge, water lilies and other acquatic plants were bound to grow. Such spots would be ideal ones for the birds like the partridges, the ducks and the geese. The rivers and the areas with vast expanse of water must be teeming with fishes, turtles, snails, molluscs and other riverine species.

The chalcolithic communities in Bihar selected such spots for settlement. For a society which had just come up from the rudimentary stage of living, it was but essential to select such an environment, for it provided basic facilities then needed for the upkeep of the human life.

In this background an assessment of the 'economic area' may allow us to have a peep into the intellectual development of the communities and the extent to which they exploited the environment to earn their livelihood.

With the beginning of agriculture the cultural and the economic levels of mankind changed considerably. To acquire land for cultivation, 'slash and burn' technique was probably employed. Though vast

stretch of land was available, it would be wrong to think that cultivation was done in every patch of land. In the region where there is monsoon type of climate, wet summer is alternated by dry winter.

In the dry months the soil would turn hard and difficult to till. From the excavations not a single tool was discovered which could be identified as an agricultural tool. Farming was then possible only in moderately low lying areas where the fertile alluvium got deposited. In such areas moisture and warmth necessary for cultivation were available. The farmers sowed the seeds on the muddy slopes of such zones without tilling the land and they harvested before the onset of the rainy season. From the discovery of the carbonised rice from Sonpur, paddy husk, wheat and *Mung* from Chirand and Oriup, it is reasonable to infer that the chalcolithic communities of Bihar had the knowledge of raising summer and winter crops.

Variety of refuge bones were discovered from the excavation sites. They represented cattle, deer, goat and bison. Some of the bones bore clear cut marks which suggested that the animals were butchered for meat. The limbs were carefully dismembered to get the raw material to manufacture bone artifacts. Further it may be inferred that from the domesticated animals milk also have extracted. Maintenance of the domestic animals was a simple affair because vast stretch of land with grassy vegetation was available which would have served as a good pasture land.

Heaps of bone of fish, tortoise, bird, snail and molluscs were collected which hint at the non-vegetarian character of the community. Although agriculture was practised on a large scale, the animal food played vital role in balancing the society's subsistence problem particularly in times of drought and flood.

After having surveyed the economic base, it is worth-while to consider the material manifestations of the culture to understand man-land relationship.

Let us take the technological side first. Variety of tools and weapons made of stone, bone and clay were in use to meet the various needs of daily life.

The discovery of the microlithic blade tools such as the parallel sides blade, point, notched blade. Fluted core along with their waste flakes, nodules and hammerstone suggests that they were locally manufactured. The chalcolithic inhabitants of Sonpur collected the new material either from the bed of the Yamuni river or from the closely situated Barabar and Nagarjuni hills. The Patharghata hills supplied the raw material to Oriup people and the inhabitants of Chirand managed it from the dried bed of the river Son. The materials employed were exclusively siliceous stone such as carnelian, chalcedony, agate and chert. The cortex of the nodules of the above noted stones was flaked off and then with the pressure technique cores were prepared to take out blades. Amongst the tools, the parallel-sided blades had the highest representation, the points and the notched blades were next in order.

In many primitive societies of the ancient world, stone blades were used as sickle by hafting them either in the wooden handles or in the animal jaws with some glue like substance. Considering the width of the blades exhumed from the different chalcolithic sites in Bihar, it becomes difficult to believe that these microlithic blades would have been utilized as sickle to harvest the crops. The maximum width of the blade was 80 cm. When it would be hafted, half of its width would be covered in the handle and the rest would hardly be effective in harvesting. Instead of cutting the crops with such sickle, it would be easier to snatch the crops from their roots. Such practice is even now adopted in many parts of Bihar. The stone blades would have been utilized in skinning vegetable food or in dressing wooden handles. The notched blades were most probably utilized in manufacturing bone artifacts.

The bone artifacts such as spear-head, lance-head and arrow-head were fashioned out of the long bones of the cattle or the deer. The animal bones were carefully dismembered to get the desired size of the raw material.

Most striking was the discovery of the copper ore. Man with keen sense of perception would have identified the ore and developed the skill of mining, smelting and casting. Being malleable in character, copper could be turned into any desired shape and would take as sharp an edge or as fine a point as that of stone or bone. The other advantage was that it could be melted and cast again and again.

How the ancient metallurgists reduced copper out of the ore, is difficult to enumerate, but from the present day knowledge it has been gathered that a temperature around 1200°C is required to smelt the

ore. It can be inferred then that the ancient metallurgists had developed the technique to raise the furnace temperature around 1200°C.

From the excavations only copper bangles have been recovered and that too in a limited number. The poor representation of the copper objects may lead one to surmise that copper was a costly metal and it was one of the items of import from the Singhbhum area where there is a sizeable deposit of this ore.

In the early quarter of the 20th Century copper objects such as flat axes, shouldered axes and anthropomorphic figure were discovered in hoards from a large number of sites located in the Palaman, Hazaribagh, Ranchi, Santhal pargana, Monghyr and Dhanbad districts. Such copper hoards were also reported from Madhya Pradesh, Orissa, Uttar Pradesh. Since these hoards were not found in an archaeological context, it was difficult to assign them to a particular date. To fix them in a definite chronological frame, several sites were excavated. At Saphai-Lichhavai, it was confirmed that copper axe belonged to the people using ochre coloured ware which stratigraphically preceded the Painted Grey Ware.

The find spots of the copper hoards in Bihar indicate that they were not very far from the copper belt of the Singhbhum district. Traces of ancient working in copper have been detected near the border of Saraikela State and Dhalbhum sub-division. Evidence of mining also has been found near Rakha hills. Most likely the authors of the copper hoards in Bihar exploited these sources. The objects of the hoard were produced out of open mould which is evident from the bubble cavities present on the surface of the artifacts. The specimens suggest that the casting technique had not fully developed.

The creative genius of the communities did not stop at these discoveries. Considerable progress was made in the field of ceramics. The variety in the types of the earthen vessels stands as a positive proof as to how the potters zealously kept themselves engaged in creating new shapes to meet the growing needs of the society.

It may be quite useful to study the techniques involved in the art of pottery making to understand the technical know-how of the chalcolithic potters. The clay used in the fabrication of the potteries was mixed with husk as is evident from the sections of the sherds. The clay mixed with sand and mica was also used but on a restricted scale. The preference for the clay mixed with husk was probably due to the fact that it provided greater binding capacity and workability but its disadvantage was that it did not permit the potters to fabricate fine variety of potteries. Majority of the pots, therefore, ranged from medium to coarse fabrics. For fine fabric it was essential to scrape the pot on a rotating wheel. If the pots of the clay with mixed husk would be thoroughly scraped, the blades of the husk would come out and make the surface rough. Pots of fine fabric, however, were produced out of sandy clay but their number was quite few.

Though the vessels were produced on wheel, yet there was hardly any vessel which was entirely shaped on the wheel. Other techniques such as the use of mould, dabbing and scraping were combined together to shape the vessel.

After the complete shape of the pots was achieved, the pots were allowed to become bonedry in a shady place where there was uniform temperature range. Then they were treated with a slip. Burnishing was done when the vessels were in a leather-hard state with round pebble. It rendered the porous surface of the vessels impermeable and prevented the absorption of moisture. The burnishing technique also lent pleasing and glossy look to the vessels.

More fascinating were the painted designs which were executed on the vessels with the white or yellow colours both before and after firing. The designs consisted of cluster of vertical wavy lines and small solid circles. Appliques, incised, impressed designs as well as the grafitti marks were the other modes of decorating the vessels. The grafitti marks were executed probably with a pointed copper tool or with a notched stone blade.

That the vessels were baked in more than one way is evident from the discovery of the red ware, the grey ware, the black ware and the black-and-red ware. Most startling were the various hues in the colours of the wares. For instance, in the red ware, the vessels were of orange red, chocolate, deep red, lilac pink etc. Similarly in the grey ware, some vessels were of deep grey ware while others were pale

grey. This happened according to the mode of firing when the vessels were fired in the oxidising condition, they turned red and the various tints in the red colour depended on the proportion of the ironoxide present in the slip. In the reduction method the vessels turned either black or grey.

The method adopted in baking the black-and-red ware was cumbersome. The vessels of identical size were filled with dry grass or chaff and were stacked face to face. The rim portion of the pots was completely sealed with green clay in order to prevent air from going inside the pot. While stacking the vessels in the kiln, dry grass, husk, leaves etc., were placed in between the space of the vessels. The stacked vessels were covered with grass and reeds and finally sealed with a thick layer of mud. Through the stoke-holes, the fire wood was fed. In addition to this, two or three vent holes were provided in the kiln which were kept securely closed. The fire was lit through stoke-holes and when the smoke accumulated inside the kiln, the fire passages were closed. This process was repeated many times till the vessels baked. In this method the vessels turned black due to the absence of air inside the kiln. After this the side vents of the kiln were opened which allowed the air to go inside. The free access of the air oxidised the external portions of the vessels quickly. In the inner portions of the vessels combustion did not take place which helped in retaining black colour.

Numerous shapes such as the simple bowl, the oval bowl, the perforated bowl, the lipped bowl, the dish, the trough and the vases came to light. These were the common types discovered at all the three sites but Chirand and Oriup added a few more shapes to the inventory of the chalcolithic potteries of Bihar. The additional types comprised the dish-on-stand, the cup with short stand, the jug and the channel spouted bowl. These forms may allow us to infer that the chalcolithic people at Chirand and Oriup led more sophisticated life than the inhabitants of Sonpur.

Bead making was another important craft. The discovery of the beads of semi-precious stones, steatite, faience and clay in appreciable number demonstrably speak of the growing aesthetic sense and the economic prosperity. Siliceous stones like chalcedony, agate, carnelian and jasper were selected for making beads because of their colourful look. The homogenous character of these stones helped the artisans to chip them into desired shapes. The shapes encountered were barrel, short barrel and globular. The rough-outs of the beads were prepared through the pressure technique. Then they were grinded against the fragment of a sandstone with some abrasive to make the surface smooth. The suspension hole in the beads were made by drilling pointed copper tool, in the final stage. While drilling abrasive powder and water were made use of.

Disc shaped beads were fabricated out of steatite stone. Faience was another material which found favour with the chalcolithic people. This was prepared by mixing copperoxide and crushed quartz powder.

The terracotta beads were prepared out of clay mixed with sand. They were decorated with a lattice design and cluster of oblique lines. The suspension holes in them were made with a thin stick in a leather hard state.

The exploitation of different kinds of stones in the manufacture of beads clearly reflects society's growing capacity of identification of the rocks and minerals. Other items in ornaments were the bangles and rings. The bangles were fabricated out of clay, bone and copper but the rings were exclusively of copper.

Nothing has survived to indicate how the people dressed themselves. A few terracotta discs with small holes in the centre have been discovered. They may have been utilised as spindle whorls.

Hunting must have been an important item of their pastime. Bone points, arrow heads, both plain and socketed, have been collected in good number from all the excavated sites. Bigger and fast running animals like the deer, the cattle and the boar were caught by laying traps.

The heaps of fish bones suggest that fishing was also a favourite game of the chalcolithic communities. Surprisingly enough, both at Sonpur and Chirand, neither the fish-hook nor the harpoon was discovered. It is most likely that the bigger species of fishes were caught with fishing nets. Normally, big fish are not found in shallow water. To catch them, it was essential to dive deep. This was possible only when the people knew the art of swimming. Smaller fish and other riverine species such as turtles,

snails and molluscs were caught with the help of weirs and traps. At Oriup fish-hook made of bone was discovered which may suggest that fish-hook was also employed in addition to the method described above.

Generally the hearths used to be outside the dwellings. The hearth discovered at Chirand was of peculiar nature. It had a metre long passage dug in the grourd. Attached to this were three or four side channels. The fire wood was fed through the longitudinal channel; the charcoal and ash were removed from the side channels. The soil around such hearths had turned white which indicated the concentration of calcium carbonate or calcium phosphate. Most likely snails and molluscs were roasted on such hearths.

At Oriup, circular, semi-circular and dug out hearths were encountered. The first two varieties were made with chaff mixed green clay. The walls of the hearths were raised on the ground and a central passage was provided to feed the fire-wood. Such hearths were good enough for small unit of the family consisting of three to four persons. The dug-out variety may have been used on ceremonial occasions.

The post-holes, lumps of mud plaster bearing reed impressions and the traces of the floors of the huts demonstrably point out that the dwellings were made of flimsy materials such as bamboo, reed and wattle. The huts were either apsidal or circular on plan. The evidence recorded at Sonpur[9] indicates that the diameter of the huts varied between 4½ ft. and 6 ft. The floors were levelled, rammed and costed with ochreous earth to keep them neat and tidy. Sometimes thin coating of lime was also applied probably with the intention to keep the floors damp proof as well as insect proof. Lime was probably derived by burning the shells of snails and the ochreous earth was procured from huge mass of weathered sediment deposited by the side of the rivers. At Chirand, it was noticed that a dump of ochreous earth was kept in reserve near the dwelling places, for in the rainy season it was difficult to get such earth from the river side and as such the people thought it desirable to keep the ochreous earth in reserve.

The reed walls of the hut were made to stand erect against the supporting bamboo poles. The walls were plastered with 4 to 6 inches thick mud to protect them from easy natural decay as well as from the fire havoc. Most likely the roof was conical in shape. The advantage of such roof was that it did not allow the rain-water to trickle through it, rather it splashed down quickly.

The examination of the material relics presents a glimpse of rural culture. The organised community life made it possible for the people in the society to take up different vocations according to their aptitude and ability.

Some of the vocations needed full time workers while some were part time jobs. The people who took to cultivation would have remained fully engaged at the time of sowing the seeds and harvesting the crops. A period of three to four months was sufficient to reap the crop. Within this period occasional attention was needed to weed out the unwanted grass from the field and guard the standing crops from being damaged by birds and animals. Such work would have been entrusted to the females in the house. In the intervening period, the farmers would get time to devote to other persuits.

Other vocations such as pottery making, bead making, copper smelting needed full time workers.

Pottery making was a specialised craft. The selection of clay, its preparation, fabrication of shapes, surface treatment, burnishing, drying and baking were the different processes involved in this craft. Amongst these the baking process was most difficult. While baking, the potters had to take utmost care to save the vessels from being underfired or overfired. In either case there was danger that their labour would be wasted. The technicalities explained above clearly indicate that full training was needed to pursue the potters' craft.

The crypto-crystalline quartz group of stones were preferred for bead making because of their hardness and the pleasing appearance. Their identification was definitely an act of keen perception. Such stones would have been collected either from the bed of the rivers where they came rolling from distant hilly regions or quarried from the rocks where they were available. At Chirand beads of semi-precious stones and steatite were collected in appreciable number in finished as well as unfinished state. There is no out-crop of rock nearby Chirand and therefore it is reasonable to infer that the chalcolithic inhabitants of this

area got these stones by way of exchange. This reveals that two sets of people were engaged in prospecting, collecting and exchanging while the other set of people was engaged in bead manufacturing business. The people who devoted themselves in the former job must have kept themselves moving from region to region in search of stone. Naturally, they would not find time to devote to other work. Similarly the bead manufacturers prepared a rough-out for the bead, ground it with some abrasive to give desired shape and finally drilled it. All these processes demanded patience and skill which would be performed by experts only.

Likewise working in bone commanded considerable technical know-how. Probably the intuition of some talented persons realised that animal bones could be utilized for making tools and weapons. Not all bones but the metacarpal, the metatarsals and the antlers were considered suitable for tool making because of their stocky structure and their length. The bones were seasoned by artificial means before they were converted into tools and weapons. The artisans must have taken sufficient time to become conversant with the structural properties and then they developed artificial means to arrest their natural decay. It is reasonable to infer that bone working was also a specialised craft practised by a few persons.

The reduction of copper out of its ore was equally a difficult task. Copper ore usually occurs in volcanic rocks and veins. Copper mining, smelting and casting called for extraordinary skill which would have been performed by skilled persons only. Skill developed by trial and error processes and by constant association with the job.

Man by his insight tried to exploit his environment to the extent his technical ability permitted.

The foregoing examples have made it amply clear that the full time workers engaged in different crafts had no time to practise agriculture. The surplus food produced by the agriculturists served as a base in the growth of crafts. The specialists in the society were thus relieved of the anxiety to solve the subsistence problem and were able to devote their full time to develop and improve their technological skill. The wide range of the material relics pertaining to different crafts are the positive proof of the co-operation that existed between the peasant community and the other skilled classes.

As a sequel to the growth of crafts, the society was automatically divided into different classes in accordance with the nature of vocations such as potters, carpenters, smiths, metallurgist, bead-makers, bone workers, hunters and peasants. The practitioners of each vocation developed skill by their intuition to enhance the quality of their products and also to exploit the natural gifts around them to make life happier. The knowledge gained in one generation was passed on to another.

XI

A Potter's Kiln of Jorwe Culture from Daimabad

S.A. SALI

INTRODUCTION

In the excavation of the protohistoric sites, pottery is abundantly found. But the kilns in which it is fired are of rare occurrence. So far, pottery kilns have been reported from Mohenjodaro[1], Harappa[2] and Inamgaon[3]. At Mohenjodaro they were oval and circular in shape whereas that from Harappa was circular. They had probably domed tops, pierced floors and underlying fire-pits. The potter's kiln from Inamgaon belonged to the Early Jorwe Period (*C.* 1400 B.C.) and was circular in shape, had radiating flues and underlying fire-pit with a sloping passage. In this paper the author proposes to present details of a potter's kiln of the Jorwe Culture which was exposed at Daimabad during the season of 1977-78.

THE SITE AND ITS CHRONOLOGY

Situated on the right bank of the river Pravara, a tributary of the Godavari, in Shrirampur taluk of Ahmednagar district of Maharashtra, Daimabad (Lat. 19° 31′ N., Long. 74° 42′ E) lies about 16 km south-east of Shrirampur and 6 km south-east of Padhegaon, a railway station on the Daund-Manmad section of the Central Railway. Renewed excavations here by the author necessitated by the find of a cache made in the year 1974 of four solid bronze figures including a chariot yoked to a pair of bulls and driven by a man, a buffalo, an elephant and a rhino, during the last four seasons, from 1975-76 to 1978-79, have yielded a host of information about the five chalcolithic cultures, each distinguished from the other by a distinct class of painted pottery of its own. The sequence of these cultures was found as follows :

Phase I	...	Savalda Culture
Phase II	...	Late Harappa Culture
Phase III	...	Buff and Cream Ware Culture
Phase IV	...	Malwa Culture
Phase V	...	Jorwe Culture

The C^{14} dates received in two lists from the Physical Research Laboratory, Ahmedabad (*per. com.*) for the different phases are as follows :

Phase	*Sample No.*	*C^{14} date*
Overlap between Phase IV and Phase V	PRL 411	3230±100 (3320±100) (1370 B.C.)
Topmost layer of Phase IV	PRL 412	3250±110 (3340±120) (1390 B.C.)
Phase III	PRL 419	3070 (1120 B.C.)
Phase II	PRL 420	1410 (A.D. 540)
Phase II	PRL 426	3710±210 (1760 B.C.)
Phase III	PRL 428	3500±140 (1550 B.C.)
Phase I	PRL 429	3490±220 (1540 B.C.)

The date around 1400 B.C. for the end of the Malwa and the beginning of the Jorwe Culture arrived at by samples PRL 411 and PRL 412 for Daimabad appears to be consistent with the C^{14} date of 1400 B.C. obtained for Inamgaon for the beginning of the Jorwe Culture there.[4]

The sample PRL 420 was collected from the slope. It was concealed by a patch of sand and silt deposited later in a raingully and so it was suspected to have been contaminated. Hence the date A.D. 540 for this sample is not surprising.

The date 1760 B.C. given by the sample PRL 426 is almost nearer to what was expected (1800 B.C.) for the upper levels of the Late Harappan phase at Daimabad on the grounds of Stratigraphy as also taking into account the date 1600 B.C. for the beginning of the Malwa Phase in Maharashtra arrived at on the basis of the C^{14} dates for Inamgaon[5] and also the date 1390 B.C. (or 1400 B.C.) for the topmost layer of the Malwa Phase given by the sample PRL 412 from Daimabad.

The dates of the samples PRL 419, PRL 428 and PRL 429 are all inconsistent.

THE KILN (Pls. IX a-b and X a).

Apart from the residential and religious structures, the levels of Phase V, the Jorwe Culture, have also yielded evidence of two pottery kilns, called Kiln No.1 and Kiln No. 2, in Sector II of the site (Pl. IX a). Both the kilns were found near one another, their distance between the two being only about a meter. The Kiln No. 2 appeared to be almost similar in details to the Kiln No. 1 but only the latter was exposed fully[6].

The kiln under description occurred in the trenches Y'2, Y'1, X'2 and X'1 in Sector II of the site. It was covered by a layer of white and grey loose ash, about 10 cm thick, and the surrounding area was marked by loose earth mixed with ash and numerous potsherds. When fully exposed, it measured 5 meters long and equally broad with rounded corners. This square structure lay in the north-west-south east orientation, an orientation identical with that of the residential houses of the lower levels of the Jorwe Culture, suggesting a definite planning in the Habitation of the early levels of this culture. This kiln was located at a lower level than the surrounding ground level.

The platform of the kiln, made of mud, was 25 cm high. The enclosure of the kiln surrounding the platform, with oval-shaped stoke holes, consisted of three parts, the outer mud-wall, the central ash packing and the inner burnt wall. The kiln had two stoke holes from the north. A large stone was inserted in the wall of the kiln in the south-east corner probably to serve as a step for getting into the kiln from the top of the wall. The extant outer mud-wall and the ash packing were 1.40 meters high from the base of the kiln whereas the inner burnt wall, which lay slightly obliquely against the central ash-packing, measured 1.10 m high above the surface of the platform. The outer mud-wall was made of lumps of mud and plastered from the outside. It was 50 cm broad at the base, tapering upwards to 15 cm at the top. The ash packing, composed of white and black ash mixed with earth, varied in thickness from 15 cm to 50 cm. This packing, which was fairly compact, served as an insulator of the kiln. The inner burnt wall resting against the ash packing consisted of a series of laminar burnt clay layers and varied in thickness from 5 to 10 cm. A similar kind of wall varying in thickness from 3 to 5 cm and running across the kiln divided the inside of the kiln into two compartments, called here eastern and western. The inside of the kiln measured 3.50 m long and almost equally broad. The floor of the kiln was finely plastered from time to time and had a gentle slope towards south. The kiln in the inside contained reddish fine gravel. charcoal lumps, charred logs, potsherds and fifteen crushed complete and incomplete pots. A large number of charred stumps of wood occurred on the floor of the kiln, in various levels of the gravel-filling in various positions, viz. oblique, horizontal and vertical, and in vertical position in the holes in the wall of burnt laminar clay around the kiln. The charred logs represent the fuel wood used in the kiln. The brick-red colour of the gravel was apparently for the purpose of raising the temperature artificially. A large number of potsherds were found in the gravel. In the eastern compartment only potsherds were found but at the base of the western compartment fifteen crushed pots were found.

Outside the kiln adjoining the north-east corner was found embedded in the ground a large oval-shaped jar (Pl. X a and X b) of handmade thick coarse ware profusely decorated in applique with human, bull and reptile motifs and concentric arches. In this jar were found placed a large number of small angular and sub-rounded stones bearing stains of soot and burning.

The kiln was thus square in shape, the walls being rounded at the corners. The pots were placed inside the kiln in layers and the cavities between the pots were filled with fine gravel as also fuel. Against the inner burnt wall and also in its holes thin logs of wood were placed vertically as fuel. The oval-shaped stoke holes served as air vents as also were used to put fire. From the top, the kiln was closed with a layer of ash. The gravel inside the kiln raised the temperature artificially and the packing of ash and earth served as an insulator and thus helped to maintain high temperature for a long time.

Among the fifteen pots, numbered 1 to 15, only one (No. 15), belonged to the thick coarse ware (Pl. XI a) and all the rest to the Jorwe Ware. The vase of thick coarse ware is pink in colour, with a pedestal base, squat globular body and splayed out rim. It is decorated on the outside with applied designs on the rim, neck and shoulder. The most interesting design on this pot is, however, the design consisting of eleven elongated pointed oval-shaped pecked dots on the shoulder. The types in the fourteen Jorwe Ware pots include one big handi-type vase with funnel-shaped mouth, tubular spout and carinated body; three examples of a high-necked vase with squat bulbous body, horizontally splayed square undercut rim and almost vertical tubular spout reaching upto the lower side of the rim (Pl. XI b); three specimens of large vase with oval-shaped body, narrow mouth and beaded rim (Pl. XI c); four examples of a vase with beaded rim, short narrow neck and pear-shaped body (Pl. XI d) and two specimens of a vase with broad mouth, roundish body and beaded rim (Pl. XII a). The painted designs in black include spirals, cross-hatched lozenges, loops, horizontal bands, arch motif between horizontal bands, oblique lines, wavy lines and standing deer with wavy horns.

Interesting was the evidence of the occurrence of the so called "potter's marks" in black painting (Pl. XII b 1-8) on some of the pots. Each of these marks differed from the other. Had these marks been really the "potter's marks" all the marks should have been identical. The occurrence of different marks on the pots in a single kiln therefore goes on to suggest that the different painted marks occurring on the pots of the Jorwe Ware are not the "potter's marks".

A few of these pots bear graffitti marks (Pl. XII, 9-13). Since the graffitti marks occur on the pots from the abandoned kiln it goes without saying that the graffitti was engraved on the pots when they were in green hard state. The graffitti is very shallow and had these graffitti-bearing examples been found outside the kiln the graffitti could have been mistakenly taken to have been engraved after firing.

CONCLUSIONS

It will be amply clear from the foregoing that the exposed potter's kiln of the Jorwe Phase at Daimabad is quite different in details from those reported from Mohenjodaro, Harappa and Inamgaon. The use of river gravel inside the kiln for artificially raising the temperature is a very important aspect which gives a glimpse of the talent of the potter. It should be mentioned that the filling of the second kiln, Kiln No. 2, also consists of mainly fine gravel, greenish-pinkish in colour, at the base, over the floor, the gravel, however, being coarse and angular. The use of central ash-and-earth packing as an insulator is another aspect of the kiln which gives us an idea about the advanced scientific knowledge the potter possessed in the pottery firing technique. The exposed potter's kiln described above has thus brought to light for the first time unknown aspects of the techniques used by the potter of the Jorwe Culture in the pottery firing.

The illustrated pots found in association with the kiln are described below (Pls. X b, XI a-d and XII a) :

1. A large oval-shaped vase of thick coarse hand-made ware with button base, oval-shaped body and out-curved rim. It is 95 cm high and its circumference measured 2.75 m. It is profusely decorated on the rim and all over the body in applique. The designs on the outside of the rim of which only a small fragment was found, consists of two wavy rows of applique bands packed all over. On the neck is a horizontal bands with finger-tip decoration. Below this band over the body are three sets of concentric arches formed by pecked bands in applique. The three triangular spaces between the sets and the horizontal neck-band contain interesting motifs. The one which was in the triangular space of the vase facing east has a beautiful representation of a running bull with long horns, high hump and raised tail. Its body is pecked. At its back side is a lizard and above an unidentifiable creature. In the triangle facing the

wall of the kiln occurs a fine representation of a running bull with long out-curved horns, high hump and raised tail. The body is pecked. Above the bull is a monkey-like motif, a lizard and another creature. In front of the bull are one human figure and one figure of a creature looking like a flying figure. In the third triangular space which was facing north were depicted lizards (Pl. X b).

2. Vase of thick coarse pink hand made ware without a slip or wash. It is with a pedestalled base, squat globular body and outcurved rim and is decorated in applique on the outside with three groups of oblique bands on the neck, each group consisting of seven bands, a horizontal band on the neck, three groups of four concentric arches on the shoulder and a group of eleven pointed oval-shaped dots also on the shoulder between two groups of arches. All the applique designs are with pecked marks (Pl. XI a).

3. A vase of Jorwe Ware with high neck, horizontally splayed undercut square rim, almost vertical tubular spout reaching upto the rim and squat globular body. It is painted in black on the outside with a rim-band, a band on the mouth of the spout, horizontal bands on the neck, three standing male deer on the half portion of the shoulder and below a design consisting of wavy lines, horizontal bands and oblique lines below horizontal band (Pl. XI b).

4. A large oval-shaped vase of Jorwe Ware, light chocolate in colour, with a narrow mouth and beaded rim. Of fine fabric, it is painted in black on the outside with a rim band, suspended spirals and two horizontal bands on the belly (Pl. XI c).

5. A pear-shaped vase of Jorwe with a short narrow neck and beaded rim. Of fine fabric and treated with a thin slip, it is painted in black on the outside with a rim-band, two horizontal bands on the neck from the lower of which is suspended a chain of cross-hatched lozenges on the shoulder. Between the two lozenges occur a couple of curved black bands and below a wavy line between two horizontal bands on the belly. A graffitti consisting of criss-cross pattern between two vertical lines going apart from each other at the lower end occurs on the shoulder (Pl. XI d).

6. A red vase of Jorwe Ware with broad mouth, beaded rim and roundish body. Of fine fabric and treated with a thin slip, it is painted in black with a rim-band from which are suspended opposed spirals over the shoulder and below three horizontal bands on the body. It bears an oval-shaped painted mark on the shoulder (Pl. XII a).

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6. It was planned to expose Kiln No. 2 during the 1978-79 season. But the torrential and unexpected rains of 3rd March, 1979 upset the plan and hence the second kiln could not be fully exposed.

XII

The Problem of the Black-and-Red Ware

(With reference to Malwa)

H.V. Trivedi

The problem of the crucial ceramic designated the Black-and-Red ware has long been inviting the attention of archaeologists, but despite all their thoughtful consideration, the progress made so far in its study is little. For, still it could not be definitely known whether or not this ware belongs to a single independent group. Attention is often paid to this problem, with ever revived zeal, in the symposia held at Delhi, under the auspices of the Archaeological Survey of India, but in view of the paucity of material and also due to various reasons, nothing final has been said. The main obstacle in our studies is due to the want of knowledge of the different fabric, forms and decorations, and the distribution of the chronology of this ware. But this is impracticable, considering the vastness of the region yielding it, and also being conscious of the fact that at least some of the excavations yielding this ware necessitated by circumstances, and some others were conducted by the "leap-frog" method, unmindful of the method recommended by Pitt Rivers.

Two decades earlier, in 1958, the late Dr. Subbarao explained in an Appx., how this pottery was first called "black-topped ware", in pre-dynastic Egypt, thereafter, as "Megalithic ware", since it was found along with megaliths in South India, and finally, with its yield in excavations and explorations, as "Black-and-Red ware".[1] The same scholar also showed its wide range; for it was excavated not only at Maheshwar-Navdatoli in Madhya Pradesh, but also on sites in Western and Southern India. For example :

At Rupar : it was found with the Harappan and Grey ware;

In Bikaner region : with the Grey ware;

At Lothal : with the earliest levels; and

At Rangpur, Lakhabawal and Amra : with the Harappan.

To add some more examples, we find that :

In the WEST—A few sherds of its ware excavated at Prabhasa Patan, in late Harappan level (IB), with paintings in brown on a white and creamy slip.

In the EAST : In Sonpur (Bihar) excavations (1956-57; 1959-60); not painted, but continuing from the lowest to the N.B.P. levels.

In the NORTH : At Kanauj.

In the SOUTH : At Bahal (Ib)—upper levels, with microliths and copper. At Tekwada : (just opposite the river : a few painted sherds in a burial urn. At Newasa and Chandoli : In period I, but with Malwa and Jorwe ware, *e.g.* hollow stems of dis-on-stand; cream-slipped Black-and-Red.
And there might be some other places add to the list.

Taking a general view, we find that at all these places, this ware is associated with some other type or types of ware, or, found only in the upper levels. And we cannot therefore be definite on the point. We want, for our study, this ware exclusively.

And this brings to our mind the only example of Ahar, near Udaipur in Rajasthan, which is significant in showing that this ware was found there in the chalcolithic deposits, exclusively and unassociated with any other ware, along with, of course, its naturally associated wares. in :

Ic—with. Black-on-Red ware:

Ib }
Ia } Two lower levels-without any other ware.

Here Black-and-Red ware is taken in general, e.g., plain and painted; and without consideration of *tan*, *grey*, etc., which are only the differences of temperature ranges, techniques, etc.

Thus, in a chalcolithic deposit of 30 feet, on this site, only the last phase of this ceramic tradition is characterised by the appearance of a new tradition technically known as Black-on-Red, *i.e.* red ware painted in black.

The important feature of the Ahar Pottery is that it shows a new ceramic tradition, suggesting an earlier date for the Black-and-Red ware and a later date for the Black-on-Red, which appears to have travelled to this region from outside, probably from the Maheshwar-Navadatoli region, where it is found in the lowermost levels.

Recently, twenty years after Subbarao wrote, we have some more evidence.

In his excavation at Bhagwanpura, near Gilund, about 45 miles (72 kms) north-east of Udaipur in Rajasthan, B.B. Lal found that the Black-and-Red ware continues up to the chalcolithic layers; and lowermost layers the Black-and-Red alone is found, with plain and painted, burnished grey, and the common red ware; whereas in the upper layer, it is associated with : (*i*) Black-on-Red; (*ii*) Black-on-cream; (*iii*) The Black-and-Red is continuous heretoo, throughout the levels, as at Ahar, where the same appears to have been the case, as already stated above.

Thus, at both these places, which represent the area around Udaipur, Black-on-Red (Painted red ware) makes its appearance later than the original Black-and-Red.

This conclusion appears to receive some corroboration from K.N. Puri's exploration of sites in Rajasthan, in 1956-57. Surveying the whole region from Udaipur in the west and the western part of the Mandasor District in the east, extending about 70 miles (113 kms) east-west, and about 30 miles (48 kms) north-south, he has noted, among others, sites which are purely with Black-and-Red ware, the easternmost of them being Jawad in the Mandsor District. His remarks are noteworthy and hence I quote them here. "The ware bore a family likeness to the chalcolithic pottery found at Ahar." It is also significant here that not even a single site with Black-on-Red (or painted pottery) of the other type of ware is mentioned by him in his Report, probably showing the scarcity or altogether absence of the ceramic ware, which again tends to show its later date in this region.

Here we have to take help of geography. Rajasthan really consists of two natural divisions, Marwar and Mewar—on either side of the Aravalli ranges, the semi-arid desert Marwar lying to the west of the mountain ranges, separating Ahar (Udaipur), which may be called the Banas-region, in which is also situated the site of Gilund. To its east are the rivers Waghi and Wagan, both tributaries of the Gambhiri, near which Jawad lies, and which, following its northward course at this point, slightly beyond Chittore, confluences with Banas, which in its turn, pours its waters into the Chambal.

Thus the whole triangular region watered by the Banas on the west and north and by the Chambal in the east appears to be one single region—connected not only geographically but also culturally and in some other respects. Physically also we notice that about 50 kms east of Udaipur, begins the boundary of the Mandasor District of Madhya Pradesh, watered by the Chambal and its tributaries; and Jawad, which we have often referred to as explored by Puri, is situated in this very district. The case is more

or less parallel to that of the old regions of Gujarat, *viz.*, Anarta in the north Saurashtra, with influence of the Harappan civilisation, and Lata in the south, more akin to Maharashtra.

And when the ware Black-and-Red is reported to have been found profusely throughout this region, *i.e.* the Banas-Chambal region, it appears to be not less tentative had the region deserves to be treated as one unit for the study of this ware.

In fact, the little triangle constituted by the Aravallis in the west, and the Vindhyas running obliquely towards the Gangetic basin, is the plateau of Malwa (or Greater Malwa), drained by the rivers Chambal, Banas, Sipra, Narmada and Son; and it is this region which forms one unit for our studies. Lying south of the Vindhyas and constituting the upper basis on the rivers Krishna and Godavari and more or less co-extensive with the Deccan trap, is Maharashtra. Thus the Narmada flowing between the two great regions naturally constitutes the southern boundary of Malwa, and here the Malwa plateau slopes downwards, as is correctly implied by the word Nemad, *Nimnaat*. And here I would venture to suggest, though only on circumstancial evidences, that the ceramic type technically known as "Black-on-Red" painted pottery was more prevalent in this region, *i.e.* around and below the Narmada, in Maharashtra. It is found only in the upper layers in all the places to its north in the Chambal-Banas region yielding Black-and-red (plain or painted), as seen above.

Following this line of thought, sub-varieties of either of these types of wares are possible—called after the sites, *e.g.* Jorwe, Newasa, and others.

What I have said above about the Black-and-Red type of Ahar, Gilund and Jawad, appears to be supported by our excavations at Awra and Manoti—both in the Chambal region. The first of these sites lies on the Chambal itself, and the second, about 6 kms from it. Awra is about 50 miles (80 kms) south-east of Jawad, the site where the Black-and-Red ware was found by Puri, and the easternmost outpost of the Ahar area. And what has been noted at Awra is that in a chalcolithic deposit of about 20 feet on Mound 2 (in trenches I and I a), the lowermost layers yielded sherds of the Black-and-Red; the middle layers, Black-and-Red, with Black-on-Red; and the topmost layers provided only and exclusively, the Black-on-Red, *i.e.* Painted pottery. Thus the case is similar to that of Ahar, where neither microliths nor copper was found in the lowermost layers, but what is noteworthy is the appearance of a few sherds with incisions on them. The case is also parallel to that of Gilund, where the polychrome appears in the lower levels, and the dancing figures on pottery are found in the top-layers, unlike those as at Maheshwar. Thus, taking a general and broad view. Awra appears to be related more to Ahar, rather than to Maheswar-Navadatoli, from where the Black-and-Red may have infiltered some time later into the region watered by the Chambal and the Banas.

Our knowledge of this ware is still vague, calling for intensive exploration. But we must have some hypothesis for our further study, to be supplemented, modified or verified, by future work. "We have been so far preparing Time Tables", as rightly said by Wheeler, "we must have some trains now", to move further, so far as the study of this crucial ware is concerned.

As regards the find of the Black-and-Red ware in the other regions, particularly in the west, we may only refer to the remarks of Spate, who, points out that one of the basic structure lines "runs slantwise from about Muttra on the Jumna above Agra, along the Aravallis to the gulf of Cambay". This line is very important as it roughly marks the eastern limit of the Indus Valley Civilisation. And following the same line of thought, we may take the Banas-Chambal region as one unit for our studies, with a horizontal line joining Bikaner, Sindh and Saurashtra (all of the Harappan culture) to its west; the Chalcolithic culture of the Deccan. to its south, and the Painted Grey ware culture to its east.

My main aim here is to find out the way of approach to study this ceramic type and thus to solve the difficult problems connected with it. And I have said that it should first be studied zone-wise or unit-wise, one of the zones taken the Chambal-Banas region where it is found in the lower levels, in its different shades of colours. Then only we can know its different chronological distributions, first in the respective zones, and thereafter, establish its relations in all the zones. This also includes the study of fabric, forms, etc., first in the individual zones and then to coordinate them all. And in view of this, the said Banas-Chambal region, which yields the different types of this ware, may be taken as one zone.

Another zone may be to its south, known as the Northern Deccan comprising sites of Bahal, Nevasa, Nasik and so on, lying south of the Vindhyas and constituting the upper basin of the rivers Krishna and Godavari, more or less co-extensive with Maharashtra, separated from the lower basin of these two rivers constituting Andhra, which may be still another zone.

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XIII

Evidences of New Cultural Elements in the Lesser Himalayan Region of Garhwal : An Appraisal

K.P. NAUTIYAL

Garhwal, a mediaeval term having originated due to the existence of several feudal forts all around on top of the sprawling hillocks, has been a land of saints and savants. This whole area of the central Himalayan region was once a part of the ancient *Uttarākhaṇḍa*, which was designated by various names such as that of the *Kedārakhaṇḍa*, *Kedāramaṇḍala*, *Uttarāpatha*, etc. The land was sacrosanct, because it had the two famous shrines of the Hindu pantheon—the *Badri* and *Kedār*—besides *Gangotrī* and *Yamunotrī*, sources of the two holy rivers, the *Alakanandā* and *Bhāgīrathī*. It was, therefore, a land of great attraction to the pilgrims visiting from all corners of the country from the most ancient past. It became a place of peaceful disposition to the recluses, who wanted total renunciation and a temporary sojourn for the laity. Though situated with an uneven geographical topography, its archaeological and historical evidences prove that the region had a continuous inflow of the people from far and wide.[1]

If the region is assessed in a historical perspective, we have several remains to point out its glorious past from *c.* 6th century B.C., to the late mediaeval period. Recent discoveries (Fig. 14) coupled with ancient monuments and epigraphs existing in the region have gradually brought forth the emergence of a new picture, which when complete may prove quite significant historically. In an attempt to unravel the past, efforts are continuing to know the effect of the climatic changes on the existence of earliest human culture in the area as also the nature and type of the material culture related to the early human civilisation. For this the town of Srinagar and the river *Alakanandā* upstream from Swit village to downstream upto Devprayāg were taken to be the best 'cultural zones' of the area for serious investigations.

Srinagar is situated at a height of 579 m MSL. The four old terraces formed by the river *Alakanandā* are clearly visible here. The nature and position of these terraces reveal that the river has been continually eroding the lower bed-surface and forming deep gorges at several points all along its course from Swit to Devprayāg. The four terraces were the creation of such process of aggradation and degradation. T^1 at Srinagar is at a height of 600 m, while the successive ones are respectively at 550 m, 520 m and 500 m MSL. The deposits of these terraces at Srinagar and further downstream consist of round pebbles with specific fluvio-glacial marks caused by heavy attrition probably during one of the Inter-glacial periods in the higher zone, of the Himalaya when due to melting of ice huge volumes of water might have flown in the river downwards. According to a recent study[2] (see Table below and Pl. XIII b) the succession of the quaternary deposits at Swit, Srinagar and downstream is in the following manner.

The river *Alakanandā* had swift erosional activities and due to the varied climatic fluctuations, it frequently changed its course creating several fossil valleys. It formed new epigenetic gorges,[3] which are normally caused due to the super imposition of pluvial cycle of erosion on the old glacial valley and by accumulation of moraines and pluvio-glacial debris. However, in the case of Garhwal Himalaya, the moraine remained confined to the altitude of 2000 metres and so the fossil valleys from Rudraprayāg to Deoprayāg were probably caused by the large volume of pluvio-glacial debris and not by the moraines.

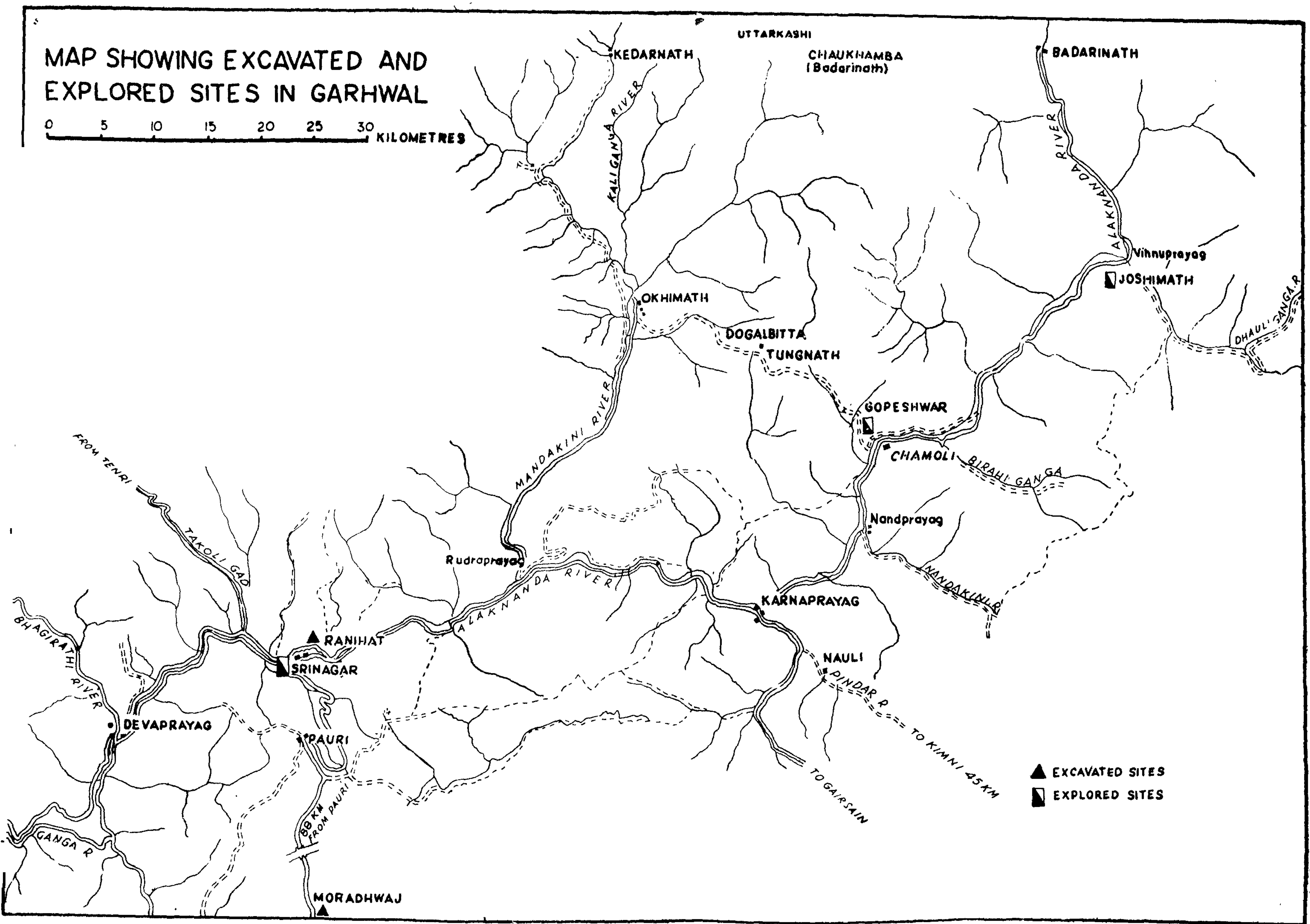


Fig. 14. Map showing excavated and explored sites in Garhwal.

TABLE

Age	*Formation*	*Description*
Recent Sub-Recent Valley	River gravel	Pebbles, Cobbles with sand and silt, angular scree material
	New terrace II I	Grey sand and pebble bed Grey sand and few pebble
Pleistocene	Middle Terrace	Boulder gravels in clayey matrix.
	Old Terrace	Red and Brown clay unconformity
Pre-Quaternary	Pauri phylites and Quarzites	

The glacial study in the Garhwal Himalaya is yet in its infancy, but Heim and Gansser in 1939[1] had reported the existence of a terminal moraine in Badrinath—Pandukeshwar area, which according to them corresponded to the Alpine—Würm stage or the last glacial epoch in India.

T^1 at Srinagar is as plain as 2 and 3. It has several important villages situated on it, but due to constant land-sliding and erosional rain gullies, it has eroded at several points and hence the gravel is clearly exposed. In the eroded gravels were picked up a few pebble stone tools (Pl. XIII a) akin to the Sohan industry. There is no bigger assemblage to confirm it positively, but the collection made jointly from T^1 by Dr. G.C. Mohapatra of the Punjab University and the writer bears a striking similarity with the chopper-chopping variety, having both unifacial and bifacial characteristics[5]. This, however, has to be confirmed by further investigations and discoveries in the area.

HISTORICAL MATERIAL CULTURE

In continuation to the efforts to bring to light the ancient cultural heritage, a historical site was discovered near Srinagar. The site is situated on the right bank of river *Alkanandā* in the jurisdiction of Tehri Garhwal and two kms straight on the other side of the river at Srinagar. The site is situated on terrace 3 and is about 50 metres above the present river bed. The entire terrace spreading in an area of 10 kms from north to south is plain and fertile now and consists of several ancient relics with modern villages including that of the cluster of three sacred shrines of *Māṇḍava kuṭī*, the *Rājarājeśwarī* temple of Ranihat, *Kilkileśwar Mahādeva* towards the northern flank and that of the *Kamaleśwar Mahādeva* again across the river in Srinagar town.

Ranihat is a small hamlet of about thirty modern houses with remains of several dilapidated shrines[6]. In and around the vicinity of these small shrines are plain fields containing ancient cultural remains of about two thousand five hundred years, beginning from *c.* 6th century B.C. On the basis of surface evidences it was taken up for excavation, which was carried for two seasons in 1977 and 1978 respectively. In the previous year it was just a vertical trial excavation followed by a horizontal one in the next year.

The habitational deposits of RNT-1 (Ranihat) contained 10 layers (Pl. XIII c), having a total thickness of 3.25 m. The whole deposits were divisible into three occupational period designated as Period I, Period II a Period II b and Period III respectively. In a nutshell the respective periods yielded the following cultural material :

Period I : Having a thickness of 1 metre to 1.5 metre has yielded the fine unpainted grey-ware alongwith a thin glossy red ware and a number of sherds of black polished ware. Since all these available wares have been found at Hastinapur, Sravasti, Kaushambi, etc., chronologically in an earlier context, this period at Ranihat was placed in *c.* 6th century B.C. to 4th century B.C.

The people of this period knew the art of smelting iron and copper. They used copper bangles and their floors were made of river pebbles covered with a thick layer of sandyloam. Their subsistence depended mainly on big and small games.

Period IIa : The period begins with several new aspects, such as that of the use of brick-structures, brick-jelly floors and tiles. The brick-size varied from $30 \times 23 \times 7.5$ cms to $22.8 \times 21.5 \times 5.9$ cms. A few wedged-shaped bricks measuring $23 \times 17.5 \times 7.5$ cms suggested some sort of a circular structure like a barn. These brick-sizes point out a Maurya-Śunga affinity. This period also gave evidences of a circular mud-oven, having 60 cms diametre with an opening of 26 cms towards the north-west (Pl. XIII d). The oven made of brick paste and stone chips and laid in the middle of the rammed floor suggested that it was some sort of a foundry. The material-content inside it gave nothing, but charcoal and burnt bones. This period, however, has a sizable collection of iron implements, which justifies for its existence just on the floor. The pottery of this period ranged from rimless *haṇḍī*, miniature bowl similar to Ahichchhatra 10A. On the basis of such evidences this period was assigned to *c.* 400 to 200 B.C.

Period IIb : This period gave evidences of the use of brick-bats robbed from the earlier period along with stones used on the floors, pavements and structures. The people laid decent floors with the help of stones. The pottery confined to the shapes of bottle-necked sprinkler, miniature vase etc. This period was placed in *c.* 200 B.C. to A.D. 200.

Period III : This period begins here after a gap of about 600 years. There were several structural activities during this period. But the chief characteristic was the building of temples in the area. The people now started living around the periphery of religious establishment.

The site was abandoned in circa 12th century A.D., but sprang up as a significant religious centre with *Durgā* temple getting comparative prominence in the area.

Besides this site, there are a few other places in the area, which have given us evidences of early cultures in a stray manner. For instance a rock shelter at Kimni village on Gwaldam-Almora road in district Chamoli bears a few paintings showing weapons, animals and reptiles painted in a very thin white pigment (Pl. XIII a). Though no other supporting evidence of their being prehistoric or early historic is available, yet it can be safely presumed that the rock shelters in and around this village were used for habitation by human population at some stage of its history.

From high altitude to the Siwalik foothills the region is prolific in ancient remains. One of the major historical sites in the Bijnor District is Moradhwaj 13 kms South-west of Kotdwara, a foothill town of the Garhwal Himalaya. The site was taken up for excavation by the Garhwal University in 1979[7] with a view to ascertaining the antiquity and thereby cross-checking it with the chronological dates of the middle region of Garhwal *i.e.*, Ranihat. The site in the past seems to have attracted attention of scholars like Gen. Cunningham[8]. Prior to them the Chinese traveller Hieun-Tsang travelling from MO-ti-pu-lo (or *Matipura*) or Madawar in Bijnor district to PO-lo-hih-mo-pu-lo (or *Brahmapura*) related about a city on the east side of the Ganges or *Gaṅgādwāra*, which was the city of Mo-yu-lo (or *Mayūra*) about 20 li in circuit. Cunningham, therefore, thought that this *Mayūra* "must be the present ruined site of Māyāpura at the head of the Ganges canal"[9]. Watters,[10] however, argued differently saying that Hieun Tsang 'apparently did not go to *Mayūra*, we should perhaps regard him as writing, about *Gaṅgādwāra* only from information given to him by others'. He, therefore, disagreed with the view that Mo-yu-lo was Māyāpur adding further that "Mo-yu-lo cannot be taken as a transcription of Māyāpura

since this town was on the west side of the Ganges whereas Mo-yu-lo (*Mayūra*) was on the east side of that river"[11].

From almost all calculations the case of Moradhwaj for identification with Mo-Yu-lo stands stronger as its geographical location fits in well with that as given by Hieun-Tsang. More explicity the place falls in the eastern direction of the *Gaṅgādwāra* or modern Hardwar and may be roughly 30 kms straight from Hardwar.

The excavations put the beginning of the site roughly in the 4th century B.C. and the end of it in *c.* 3rd century A.D. The ancient deposits of about seven hundred years were divisible into three cultural periods. From Period I were recovered the NBP ware along with fine thin grey ware. Ahichchhatra 10A and rimless *haṇḍī* in a fine red levigated clay. The NBP mainly gave evidences of dish and bowl, but the notable point in the case is that the paint was confined to the exterior and in rare cases it is on both the sides of the pot. In the houses were used the burnt bricks of a dimension of $17 \times 8 \times 2.5$ cms. But the interesting part of the evidence is that the inhabitants of this period laid out a mud rampart wall covered on top of it by the bricks. This period ended in *c.* 2nd century B.C. to be followed by a next phase known as period IIa. This period is significant for the fact that there was a great activity of house-building in the township of Moradhwaj during this time. The inhabitants made a well laid out floor out of brick jelly and wide walls for spacious rooms for their living. The construction was beautiful and the pattern of header and stretcher was followed by them. In pots and pans they had a rich assemblage, but, a particular mention of the discovery of a variety of a sprinklers suggests that the inhabitants of Moradhwaj were quite fond of this particular type of pot. Similar to this type we have a few earlier instances from Kaushambi.[12] A few of the sprinklers are earlier here because at least in the cases of two of them there is an evidence of the use of fine lustrous polish of the NBP type on the exterior, which suggests their early use. This period ends in *c.* Ist century B.C.

Period IIb : This period at Moradhwaj is affluent in every respect. There were greater activities in this period so far as the houses were concerned. The rampart wall was reinforced by solid bricks mixed with brick-bats in the middle.

In Moradhwaj 2 the complex was very big. A 8.90 m long corridor (Pl. XIV b) with side rooms measuring roughly 1.50 m square suggest that it was probably a big house-complex either of some religious significance or belonging to some individual of status. This house-complex had wide walls running from east to west and north to south. The fact that it must have had once the decorated pillars of bricks is evidenced by several such broken remains recovered in the excavations. One such examples is available in the side post-hole of the entrance in one of the inner rooms of the complex. The plan of the houses shows that the inhabitants of this period built them directly on top of the earlier structures without caring for their plans.

So far as the antiquities are concerned, there are a few very significant terracottas belonging to this period. For example a stucco figure of Buddha (Pl. XIV c) presents him in the *Jñānamudrā* posture flanked by two attendants and accompanied by two flying gandharvas on the sky. The tablet seems to have been inscribed and only one illegible alphabet of the first-second century A.D. places it in the same period. This confirms the characteristic features depicting Buddha with elements of princely ardour, which was a typical representation of this period. This portrayal can be compared well with the stone sculpture of Buddha from Katra and now in the Mathura museum[13]. Similarly another significant discovery from Moradhwaj is again a stucco of Kṛṣṇa-Keśi-*Vadha* (Pl. XIV d). Kṛṣṇa is depicted in rage, extending his right hand straight with a open palm portraying as if ready to give a slap on the horse demon, whose jaw is piercing the left arm of the God. The depiction of Kṛṣṇa in this form is totally after the mythological version as given in the Viṣṇu Purāṇa in which the episode is vividly described[14]. The sculpture or terracotta illustrating Kṛṣṇa's early childhood pranks had become quite popular in the Kushana period. Particularly one such sculpture in the Mathura museum showing demon Keśi (or horse demon) fighting with Kṛṣṇa is notable in this regard[15]. It was, however, an established opinion of scholars that themes in art relating to Kṛṣṇa[16] came to be adopted as early as the 4th century A.D. (if not earlier). This terracotta from Moradhwaj also on the basis of characteristic features is roughly

placed in the last phase of 1st century A.D. or more precisely in the early Kushana period. However, in representation this has a great resemblance with a late sculpture from Abneri now kept in the Amber museum.[17]

Besides the above, there are several human and animal terracotta figurines, but two notable instances of the mother holding a child are very similar to those found earlier at Kaushambi and belonging to the late Kushana period.[18] One notable aspect of these human terracotta figurines is that their representation is semi-archaic, the eyes are deep with round holes indicating prominent pupils. Similarly the holes also make the nostrils prominent, the hair are curly, the face pointed and almost all the terracottas are made through moulds. This was no doubt a Kushana mode[19] of representation.

The period was very rich in their kitchen household. We have a variety of pots and pans from this period. A gold coin belonging to the late Kushana ruler found from the top indicates that the site was left abandoned in the late phase of the Kushana period or more specifically around the 3rd or 4th century A.D. It was only during the 8th century and onwards that the area became predominantly a Śaivite centre as is indicated by the discovery of several Śivaliṅgas and dilapidated stone temples.

The Himalayan foothill had become a thriving centre during the time of the Buddha and continued so even afterwards upto the end of the Kushana period in the 3rd century A.D. This is clearly evidenced by the presence of a chain of sites in the region of Tarai. A few huge sites like Panduwala, Mothala, Kanwa Ashram and others, all situated either on the bank of Mālinī or in its adjacent periphery are potential for investigations. It may not, therefore, be out of context to designate this cultural complex as the Mālinī culture.

Garhwal Himalaya was thus a repository of cultural traits flowing from various ends. Though not directly connected with the migration of the Aryans, it had to witness a tremendous migration of various races and tribes from the most ancient past.

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XIV

One more Copper Hoard from the Ganga Basin and a Reassessment of the Problem

R.C. Gaur

The present 'copper hoard' was discovered from Kiratpur (78° 10′ E Long., 28° 10′ N Lat.) a village situated on the left bank of Kali-nadi, a tributary of Ganga, in Tehsil Anupshahar, District Bulandshahar (U.P.). Like most of the 'copper hoards' this one was also a chance discovery. While excavations were in progress in 1970 at Lal Qila, an O.C.P. site on the left bank of Kali-nadi at a distance of 3 km from Kiratpur down the stream, one of the labours of the excavation team hailing from Kiratpur, one day informed the author about some copper objects which were found by a woman of his village only the previous day (Feb. 19, 1970) from a mango grove, adjacent to the village, while digging the earth for domestic purposes. The author reached the village immediately, contacted the members of her family who were then trying to melt the hoard, and after a great persuation could recover from them one dozen copper objects including one anthropomorphic figure, two celts, eight bangles (rings) and one small molten mass. The last item perhaps originally was another anthropomorphic figure. Subsequently, trial trenches were laid at the find-spot which yielded O.C.P. sherds akin to those found at Lal Qila[1], Atranjikhera[2] and Saipai.[3]

The details of the objects (Pl. XV a-c & Fig. 15) are given below :

The Anthropomorphic Figure (Pl. XV b & Fig. 15): Perhaps this is smallest specimen found so far. Unfortunately it is badly damaged. Its two legs and one arm are broken and the remaining arm has been straightened by the villagers. The head is squattish and there is no trace of any ridge round it. It seems that it was cast first and then hammered, the marks of which are visible all over the body. It weighs 160.10 gm. The present measurements are :

Length	:	11 cm from 'head' to 'foot'
Width	:	15.5 cm from 'arm' to 'arm'
Max. Thickness	:	0.4 cm.

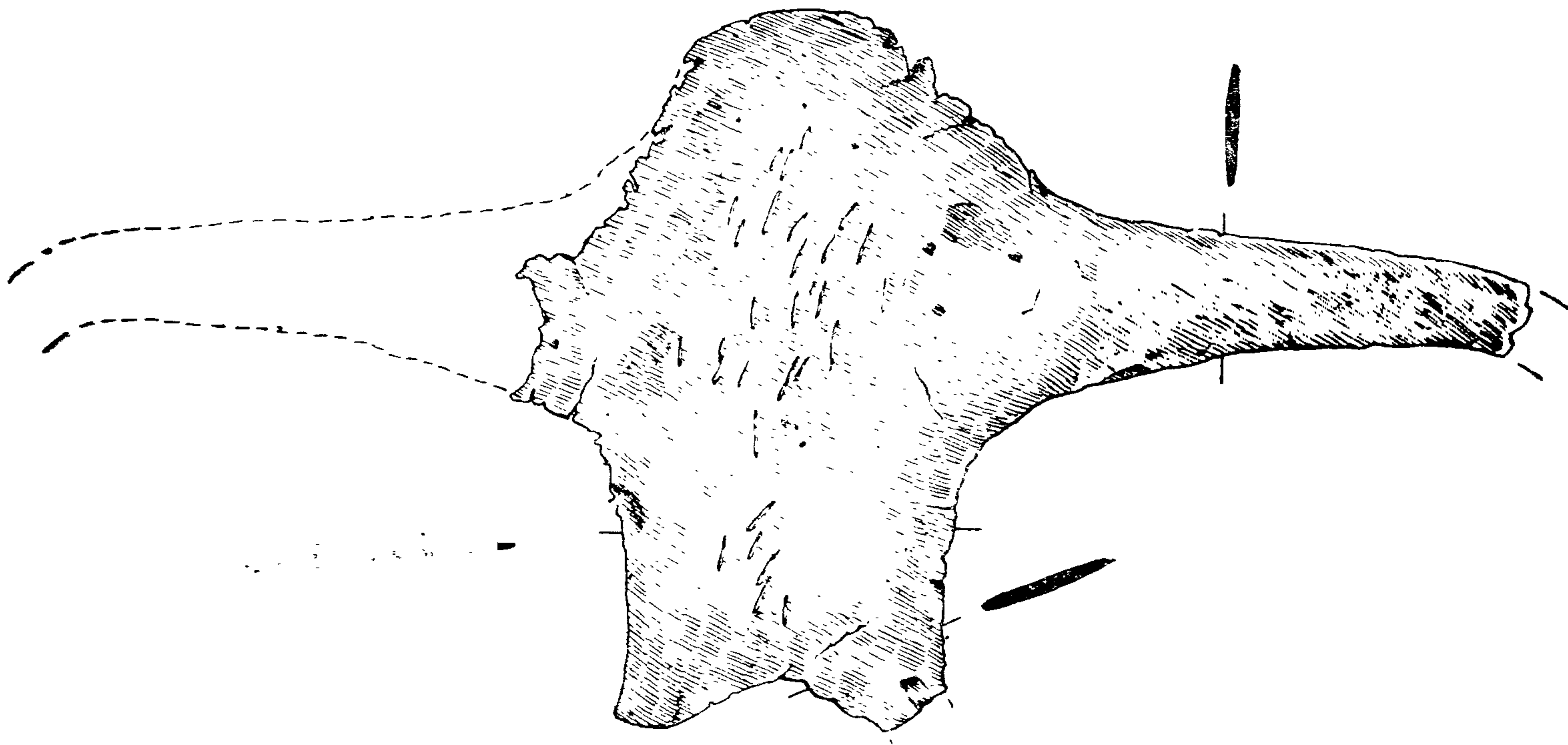
The Two Celts : Both are of the 'flat' type (Pl. XV a & Fig. 15) :

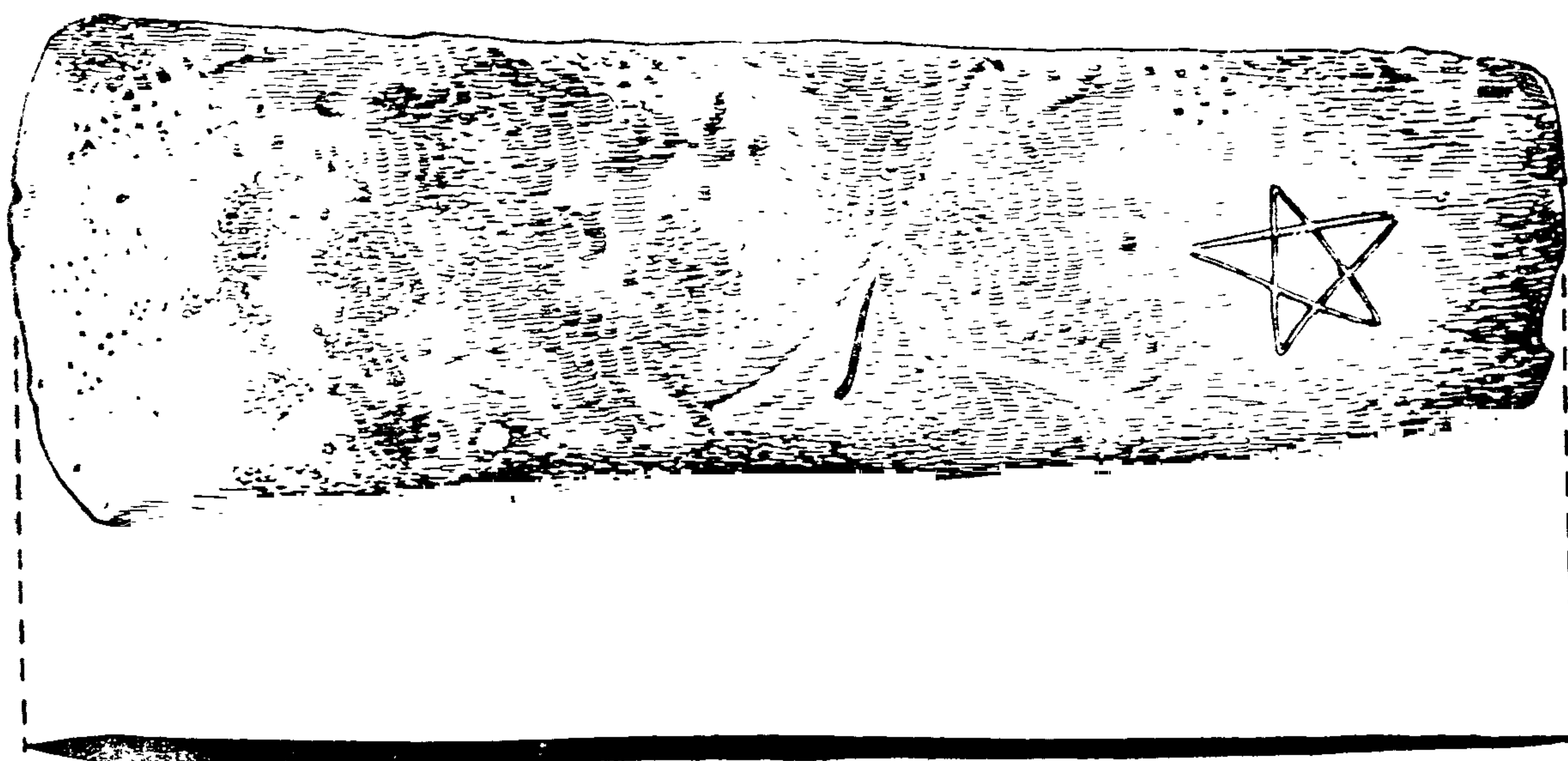
(*i*) The larger specimen is longish having a length of 18.5 cm and width of 6 cm, its section is somewhat thin being 0.4 cm only and it weighs 242.65 gm. It has almost straight sides and slightly splayed out cutting edge. The butt is partially damaged. The unique feature of this celt is that it has an engraved star mark having angular points.

(*ii*) The smaller celt is perhaps broken at the butt end. It has slightly concave sides and a splayed out cutting edge. It is 5.7 cm long, 4.8 cm wide and 0.4 cm thick and weighs 8.17 gm.

The Eight Bangles (Pl. XV c) : On the basis of their diameters, these rings may be divided into three groups :

(*i*) having 5 cm diameter—1 Bangle
(*ii*) having 6 cm diameter—4 Bangles
(*iii*) having 7 cm diameter—3 Bangles





ANTHROPOMORPHIC FIGURE & CELT
FROM KIRATPUR (BULANDSHAHR)

CM

Fig. 15. Anthropomorphic Figure and Celt from Kiratpur (Bulandshahr).

Their sections also vary and may be divided into three categories—circular, elliptical and rectangular or flat. Each ring has a 'mouth' or opening. All of them appear modelled out of long metallic rods. Their weight also differ as given below :

(*i*) 4.91 gm
(*ii*) 13.13 gm
(*iii*) 26.64 gm
(*iv*) 22.55 gm
(*v*) 20.30 gm
(*vi*) 13.27 gm
(*vii*) 18.30 gm
(*viii*) 16.36 gm.

The hoard under discussion is perhaps most 'modest' among lot found in the Ganga basin. One of the anthropomorphic figures[4] from Sheorajpur (Distt. Kanpur, U.P.) is atleast three times bigger than that found at Kiratpur. This is indicative of the fact that the tools or objects of the copper hoards could be made bigger or smaller according to the resources. Since most of the hoards have generally been found from the agricultural fields or groves, it may be deduced that the copper items belonging to the hoards were 'cult objects' of the community which were deliberately installed in hoard form at a common place probably in an agricultural field or grove not far away from the habitational area for ritualistic purposes. They remained safely preserved there. This does not, however, rule out the possibility of their being the actual tools.[5] A parallel of this can be sought in an age old tradition of the ancient *Kṣatriyas* who worshipped their weapons of war on specific occasions. Some of the arms were installed as deities for regular worship too. The tradition somehow lingers on even today. Some of the *Kṣatriyas* still worship their ancestral weapons, preserved in their families, on the *Vijayādaśamī* day every year.

Almost all the places associated with the copper hoards have yielded the O.C.P. Only in those cases in which the actual find spots of the hoards are not known, it could not be ascertained. However, all the find spots lie in the O.C.P. zone. Moreover, the excavations at Saipai[6] in District Etawah has now provided definite evidence that the O.C.P. was linked with the copper hoards. A hooked spearhead and a harpoon, typical of the group, were found along with the O.C.P. during the course of excavation. Beyond the Ganga Valley, at Mitathal[7] near Bhiwani in Haryana, a flat celt, a bangle similar to those found at Bargaon, Bahadarabad and Pondi, and a few other types were found in period II B in which the Harappan and the Pre-Harappan pottery survived together. A copper harpoon almost identical to that found at Saipai was also found from an unstratified level. Here, attention may be drawn to a fragmentary anthropomorphic figure found at Lothal[8] in phase IV dated 1900 B.C. by a C^{14} measurement, suggesting that the copper hoard tradition was in existence atleast towards the beginning of the second millennium B.C. The O.C.P. traits have now been traced in a wide area[9] including Rajasthan and Punjab.

Though the O.C.P. often has been treated as a late Harappan pottery, there is no convincing evidence for such a postulation. On the other hand the two appear to be of different origin, no doubt influencing each other wherever the two came in contact. It has been suggested elsewhere[10] that surprisingly the O.C.P. of the Doab and the Pre-Harappan pottery of the Indus valley have a close resemblance. Like wise many pre-Harappan pottery traits, found in the Drisadvati and Yamuna Valleys, are present in the O.C.P. complex of the Doab. However, Sothi[11], a significant site in the same region, has yielded typical O.C.P. sherds in considerable number. Under the circumstances, we may conclude the discussion for the present with following observations :

(*i*) The copper hoard of Ganga Basin has its own characteristics and its has nothing to do with other implements of bronze or copper found in other parts of the country belonging to the protohistoric period.

(*ii*) The authors of the O.C.P. and the copper hoards appear to be one and the same people and they had come in contact with the Harappans influencing each other.

(*iii*) The O.C.P. or copper hoard people of the Ganga basin were different from the Harappans and perhaps they belonged to the stock of the Pre-Harappan people of the Indus Valley.

(*iv*) Most probably the Harappans forced a sizeable population of the Pre-Harappans to leave their home and to move towards the east as far as the central Doab.

(*v*) So far the appearance of the copper hoards remains unexplained. However, it seems that the O.C.P. people independently developed this industry according to their need drawing inspiration from the local tradition and the environment.

(*vi*) The thermoluminiscent tests of twelve sherds of the O.C.P. from Atranjikhera, Lal Qila, Jhinjhana and Nasirpur broadly place this industry in the first half of the 2nd millennium B.C.[12] However, there are four dates (2030 B.C., 2130 B.C., 2280 B.C. and 2650 B.C.) which may push back the industry even earlier in the 3rd millennium B.C.

ACKNOWLEDGEMENT

The writer's grateful thanks are due to Mr. S. Saeedul Hasan and Mr. M. Anis Alvi for preparing the photographs and the line drawing respectively.

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4. Cf. Lal, B.B., 'Further Copperhoard from the Gangetic basin and a Review of the Problem', *AI.*, No. 7, p. 29, pl. XA.
5. The anthropomorphic figures and the bangles in all probability were not tools. While the former most probably represented a personified deity, the bangle was considered an auspicious object. Married women still offer bangles to their dieties.
6. Lal, B.B., *Puratattva, No. 5, op.cit.*
7. Suraj Bhan, *Excavation at Mitathal (1968) and Other Explorations in the Sutlaj-Yamuna Divide*, Kurukshetra, 1975, pp. 62-66, plates XVIII & XIX, Fig. 14.
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XV

Fresh Light on Ochre Coloured Pottery from Rajasthan

R.C. AGRAWALA

Students and scholars of Indian archaeology are well aware of the discovery of Ochre Colour Pottery (O.C.P.) in Western U.P. as a result of the explorations and excavations by B.B. Lal, Y.D. Sharma, R.C. Gaur, M.N. Deshpande and many other scholars and much has been written on the subject during the past 25 years. This ceramic industry has till now been roughly assigned a date as early as second millenium B.C., though the thermo-luminiscent dates range between 2650-1180 B.C. Besides this, O.C.P. has been closely associated with the Copper Hoards comprising of harpoons, anthropomorphic figures, swords etc. The scholars had opined that it belonged to a typical cultural complex of the Ganga-Yamuna Doab and that was but natural because of the discovery of such typical copper tools with O.C.P. from that part of the country.

The excavations, by the Rajasthan State Department of Archaeology and Museums at Jodhpurā[1] (tehsil Koṭpūtlī, district Jaipur) (Fig. 16), situated on the right bank of river Sābī—a tributary of Yamuna, are extremely significant in this direction because the lower levels, covering a clear deposit of more than 2 metres, have yielded O.C.P. without any indication of floods or water logging. The upper levels O.C.P. phase at Jodhpurā, on the basis of two C^{14} sample analysis by the Physical Research Laboratory, Ahmedabad have even been dated between 2500-2000 B.C.; Dr. D.P. Agrawal[2] christened this as *Jodhpurā Culture* belonging to the Pre-Harappan period. The beginning of the O.C.P. here may therefore be safely assigned a still earlier date *i.e.* 2800 or 2700 B.C. The O.C.P. at Jodhpurā consists of red slipped painted and incised (on the exterior) pottery in profuse quantity as also from most of the crucial O.C.P. sites of Western U.P. including Lal Qila. It is all the more important to note that the Rajasthan State Department of Archaeology and Museums further discovered dozens of O.C.P. sites all around Jodhpurā on the banks of river Sābī cited above, proving thereby a rich concentration of habitation of O.C.P. using people along this river flowing towards Yamuna river. The distance between Jaipur and Jodhpurā is hardly 98 kms, whereas Delhi is situated at a distance of 165 kms, only from Jodhpurā. Infact the word O.C.P. is a mis-nomer and that this pottery is devoid of any ochre or such colour. Besides this, the excavations at Jodhpurā have pushed back its antiquity to a much earlier period *i.e.*, contemporaneous with the pre-Harappan Cultures of the Indus sub-continent, most important site of which is Kalibangan in Rajasthan itself.

Our explorations and excavations in the hilly region to a distance of 40 kms, as the crow flies, from Jodhpurā, during the past two years, were all the more rewarding and revealing in the above context. We could locate an ancient site at Ganeshwar (District Sikar), distant about 15 kms from Nīmakā Thānā Railway Station on the Ajmer-Delhi line via Narnaul and Rewari; it is just on the border of Haryana. The distance between Ganeshwar and Delhi is about 200 kms whereas Kalibangan is situated at a distance of 250 kms from Ganeshwar which is a single culture O.C.P. site. This ceremic industry is available at dozens of small habitation sites near Ganeshwar (Pl. XVI a & b, Fig. 17) and that too in association with Indus type of Copper objects. In fact Ganeshwar is, surrounded by copper

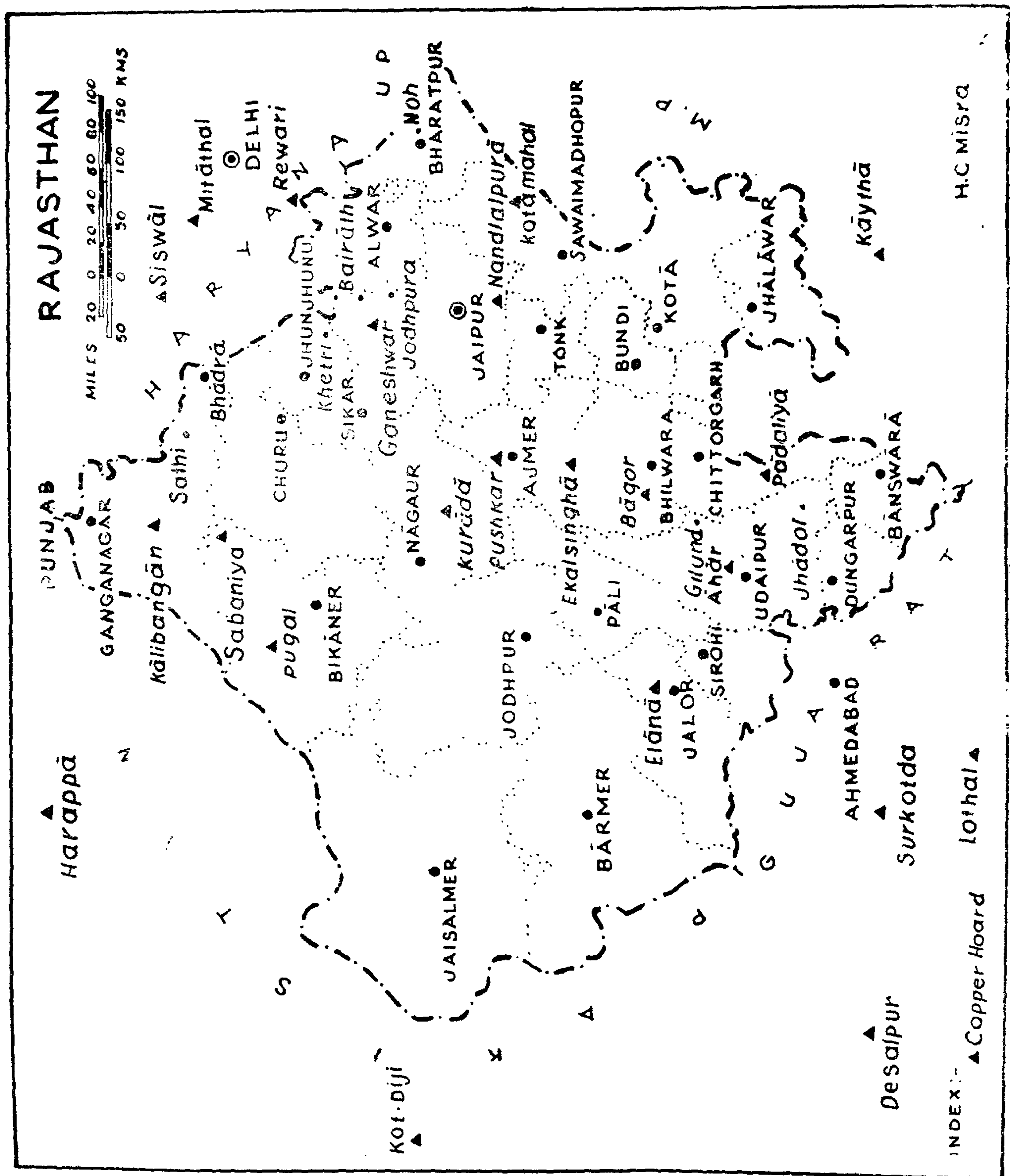


Fig. 16. Map of Rajasthan showing copper hoard sites.

deposits all around such as Dariba, Baleshwar, Ahirwala, Chiplata etc. The famous copper mines of Khetri lie about 60 kms away from Ganeshwar itself. The profuse use of copper objects such as thin arrow-heads of more than half-a-dozen varieties, fish-hooks, celts, chisels, bangles, rings, blades, spearheads, knives etc., all made of the native copper from Ganeshwar alone is amazing. The discovery of 60 flat and heavy copper celts, measuring 8 to 10 inches in length is an added attraction[3] of Ganeshwar complex; they were prepared in moulds and invariably bear round indentation marks as also

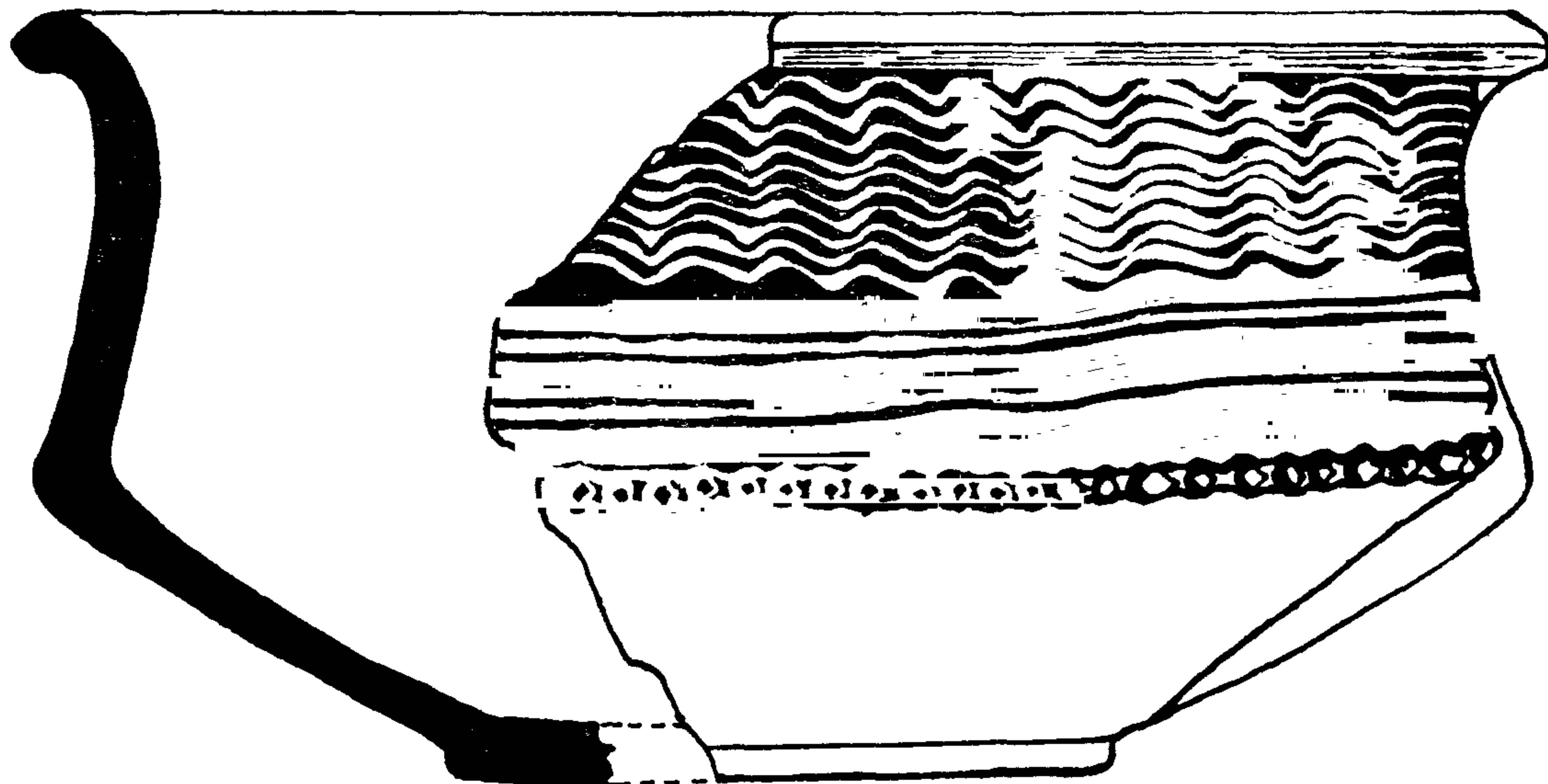


Fig. 17. Carinated bowl with flat base and painted black lines on red surface, associated with O.C.P. at Ganeshwar.

noticed on the celts from lowest levels of Kayatha, Navda Toli etc. These circular marks on Ganeshwar Celts range from four to as many as fifteen on the top, which probably indicate job symbols of copper smiths who produced them and the basis of which they probably received remuneration by the contemporary merchants. The percentage analysis of the Ganeshwar celts is copper 97, silver .2, arsenic .3, lead 1, tin .1, nickel .6, zinc .1, proving thereby that they were made of pure copper and there was no alloying of tin; the nominal tin in them was a part of the ore itself; tin was not available in that region as well. Somewhat similar analysis is available in respect of the copper arrow-heads from Ganeshwar and its vicinity; they number about four hundred whereas hardly 20 copper arrow heads each, have been excavated at the sites like Harappa, Mohenjodaro and Kalibangan. All the arrow-heads, with wood marks of shafts from Ganeshwar in association with O.C.P., are out of thin copper sheets as also discovered at Chanhudaro, Harappa and Mohenjodaro. The contemporary people of Ganeshwar at that stage were still in the chalcolithic stage, using thin long microlithic blades and various types of copper tools and weapons. This places O.C.P. at Ganeshwar in a chalcolithic context.

It was previously surmised, on the basis of close similarity of copper impurity elements between Indus copper artefacts and Khetri copper ores, that probably this part of Rajasthan had supplied copper to the Indus people. The discovery of hundreds of copper objects by our excavations and explorations and that too in association with O.C.P. at Ganeshwar (Rajasthan) has therefore added a new dimension to Indian Archaeology. Early carbon dates for O.C.P. (*i.e.*, 2700-2000 B.C.) all the more lead us to suggest with great justification that the O.C.P. had its origin in the Sikar-Jhunjhunu region of Rajasthan and it were the O.C.P. using people of this part of the country who had supplied both copper and copper artefacts to the Indus sites.

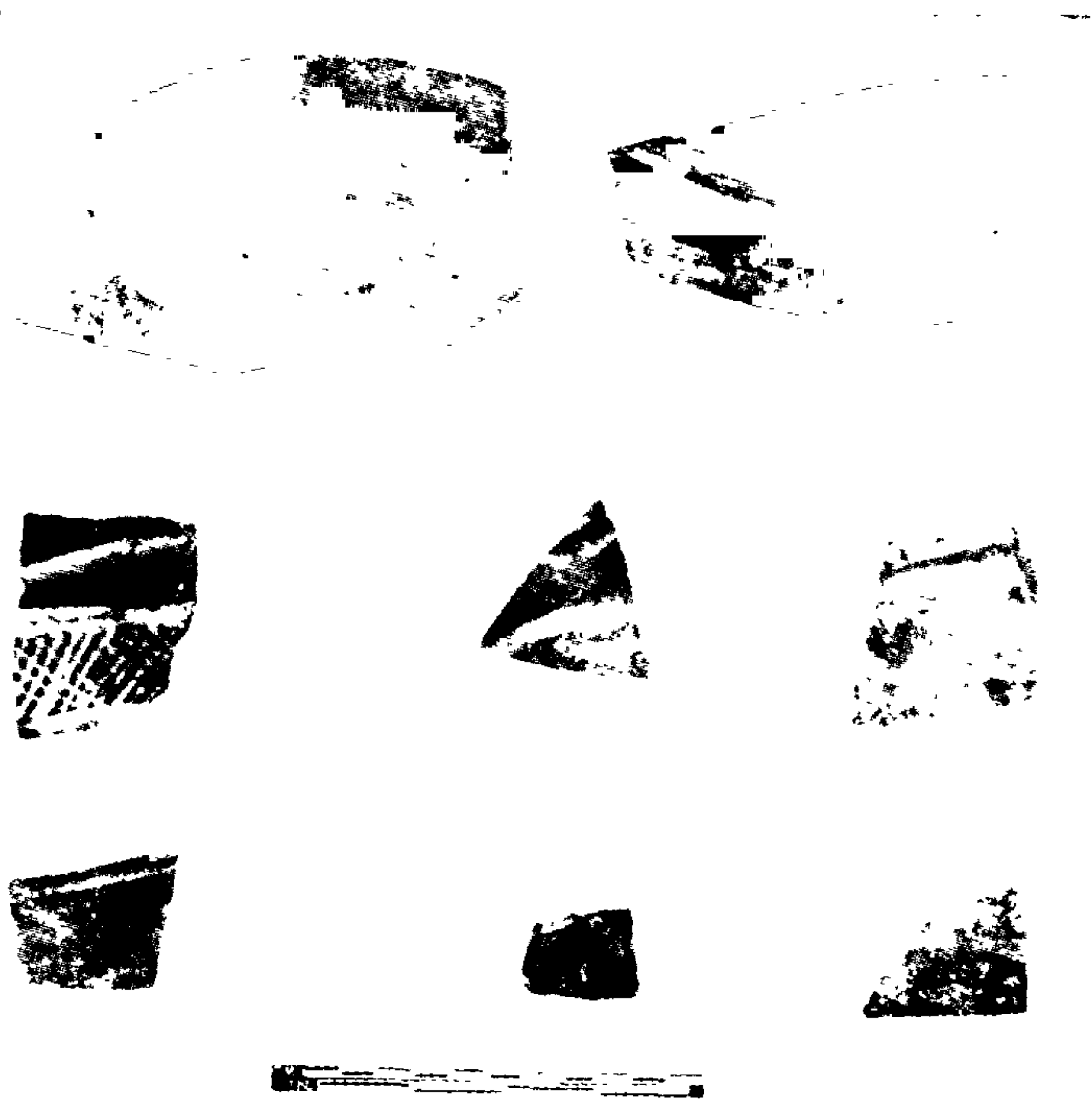
How was it possible? The site of Geneshwar lies just at the very source of river Kāṇṭalī which used to join the river Dṛshadvatī near Sothī-Bhādrā to the north, the distance between Ganeshwar and Bhādrā (on Indus Culture site) being hardly 160 kms. It was through the Dṛshadvatī thereafter that goods

were to be transported to the centres to west including Kalibangan where also quite a good number of copper objects have been excavated even from the pre-Harappan levels. There are no copper mines, but for those of Ganeshwar-Khetri belt, near Punjab, Haryana and Western U.P. and where these deposits had been exploited as early as the 3rd millenium B.C. The contemporary copper objects from Ganeshwar were in no way products of the Harappan refugees or the wandering copper smiths. The O.C.P. using people of Ganeshwar-Khetri region appear to have been the sons of the soil and they had exploited the copper deposits nearby, mainly for their own use and supplying the surplus to the places far away. It was from this part that a number of rivers like Dohan, Kasaunṭī, Sotā and Sābī originated and joining together in Haryana used to flow towards Yamuna in those days; and it was through these rivers that O.C.P. culture had its penetration towards the Yamuna region subsequently. A copper celt and a copper harpoon have been discovered at Mitathal, not very far from Ganeshwar. In the Haryana and Punjab also incised and painted pottery has already been discovered at several places and it appears that these were the people already living in this part of the country when the Pre-Harappans of Kalibangan had appeared on the scene. There was no cultural vaccum in Punjab, Haryana and North Rajasthan at that stage. Viewed in this light, the O.C.P. using people of Ganeshwar should be responsible for the spread of copper artefacts even towards Punjab and Haryana. The copper arrow heads from Harappan levels at Banawali bear close affinity with Ganeshwar counter-parts; Ganeshwar has yielded numerous barbed arrow-heads with curved tops and one such specimen was noticed by me in the Harappan arrow-heads from Banawali and on display in the office of the Director, Archaeology and Museums, Government of Haryana at Chandigarh. A few fish-hooks, without a tang, have been excavated at Harappa, Mohenjodaro and Banawali whereas our excavations at Ganeshwar, early this year, yielded about fifty such copper fish-hooks which were actually in use by the Ganeshwar people who were living in hunting and fishing stage.

It is also worth taking note of that the typical copper tools of Ganga-Yamuna Doab are absent at Ganeshwar but it is very likely that we may discover them in region bordering the entire copper belt. At present Ganeshwar is only one such copper Age site of great potentiality and there might have been many more O.C.P. centres where copper objects used to be manufactured from the local ores. Future discoveries in the Khetri region and its surroundings may enable us to hit a site which may have been the factory site for copper harpoons, anthropomorphic figures etc. The discovery of hundreds of copper objects of Indus type in association with O.C.P. at Ganeshwar is therefore a land-mark in the proto-historic archaeology of the country. It will be in the fitness of things to christen it as "Ganeshwar-Jodhpurā culture"; Ganeshwar (district Sikar) symbolises its contacts with Indus region through Kantali river whereas Jodhpurā nearby connects it with the Ganga-Yamuna Doab through the rivers Sābī-Sotā originating from the south of Ganeshwar. It is for the first time in Indian Archaeology that about one thousand copper objects have been recovered through excavations and explorations from a single O.C.P. Culture site like Ganeshwar in N.E. Rajasthan. On the other hand Jodhpurā, to its east, has furnished much earlier dates for the so called O.C.P.[4], which was in use in Rajasthan during the third millenium B.C.

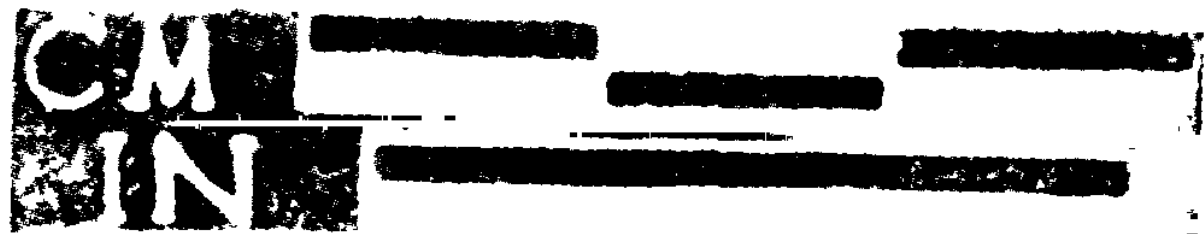
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4. Even R.C. Gaur and B.K. Thapar had earlier questioned the name O.C.P. for this pottery in Western U.P. and had stipulated an Indus context therefor. The red slip when peeled off due to weather effect gives us the idea of it being ochrous.



a. Bichrome and Black-on-Red painted pottery of Late Harappan Period.





b. Shell bangle engraved with four Harappan symbols.



c. Terracotta head of Rhino.



a. Rhino on solid wheels.



b. Bull standing on a plate supported by solid wh·



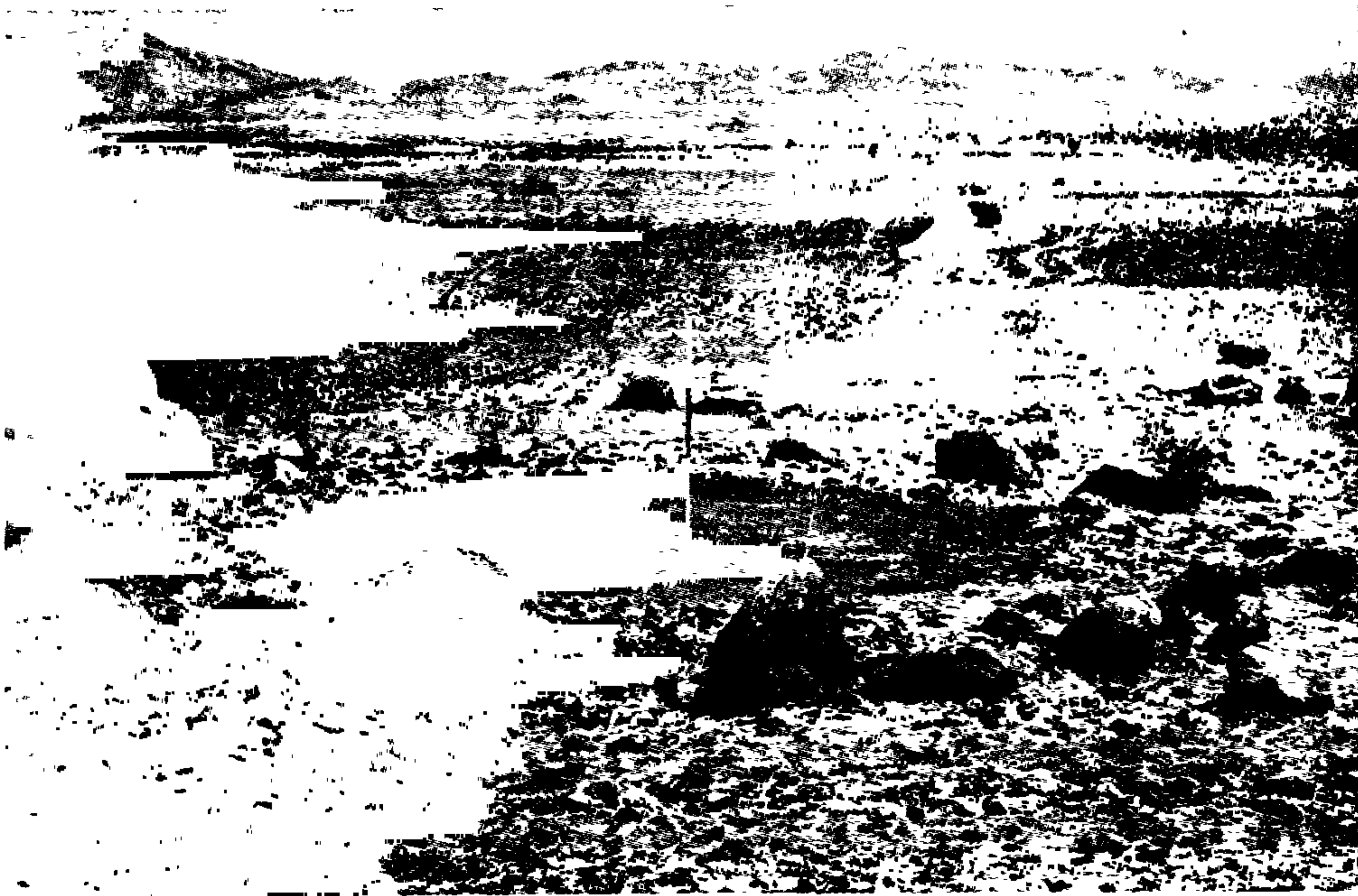
c. Elephant on a solid stand (wheels missing).



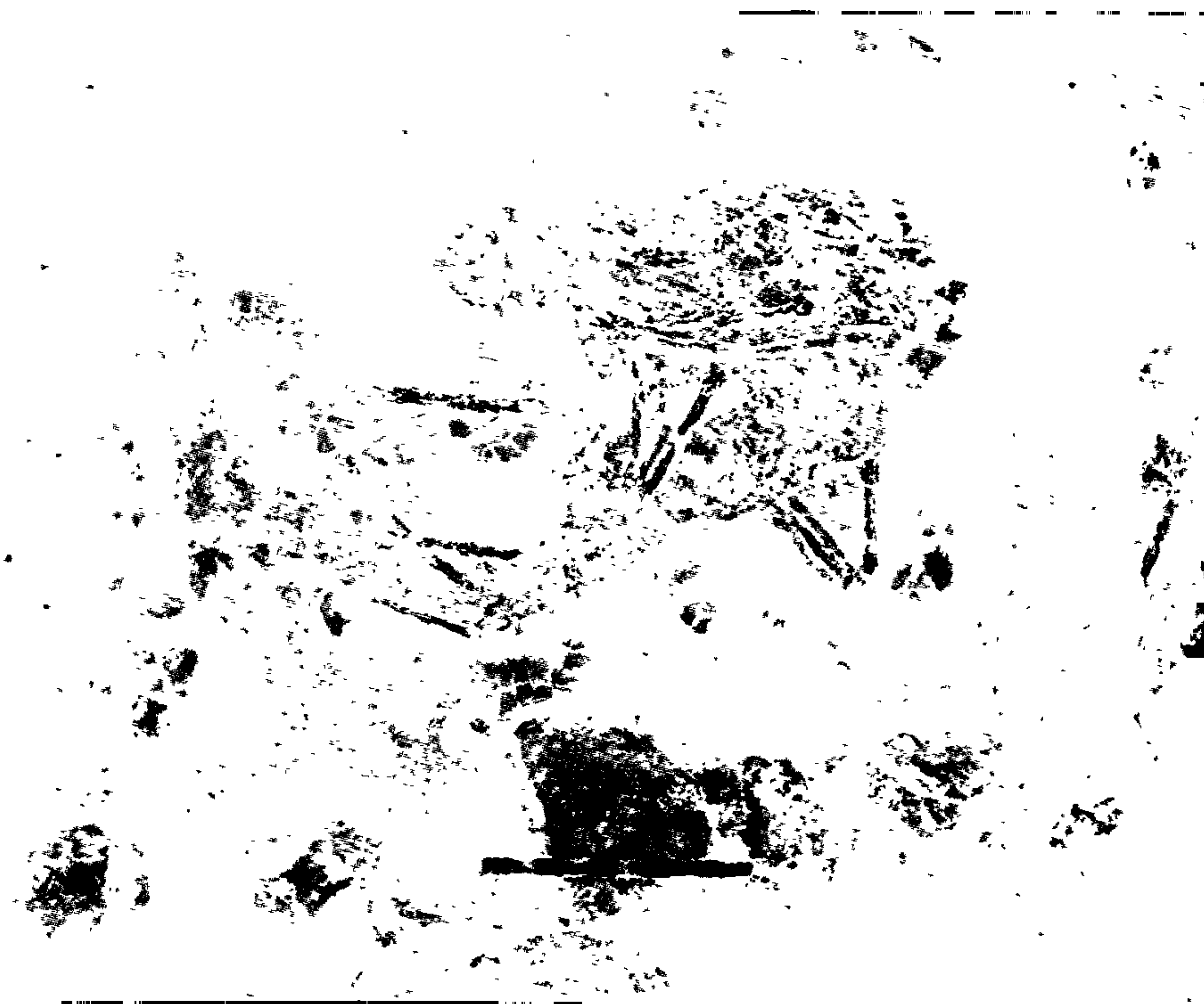
d. Charioteer or a hunter with a dog standing on a long pc
and driving a humped bull with protruding horns.

MEGALITHIC EXCAVATIONS 1978

Grave—1



a. Stone Circle.



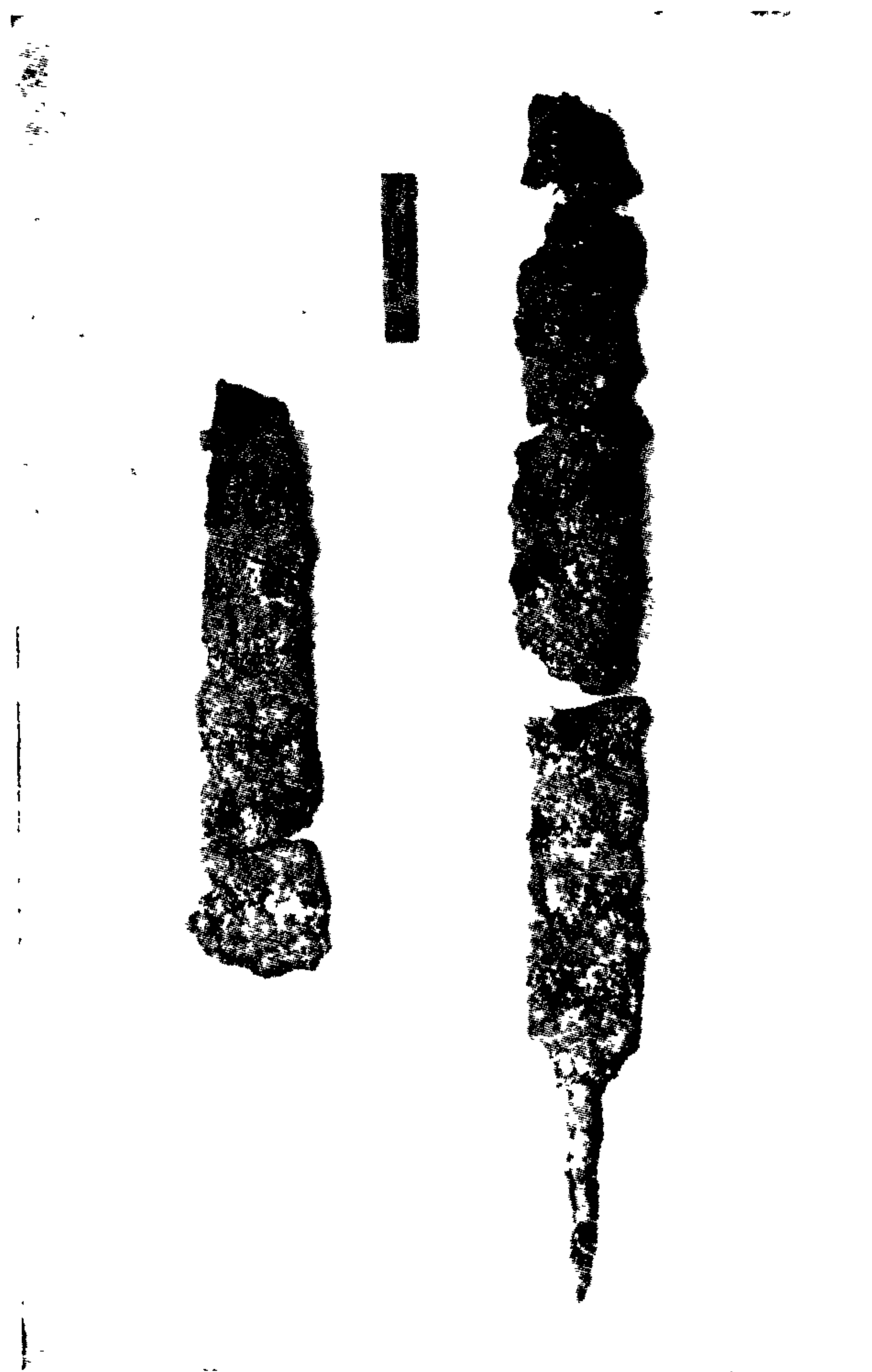
b. Skeletal Remains on a mud platform with pottery below.

TADAKANAHALLI

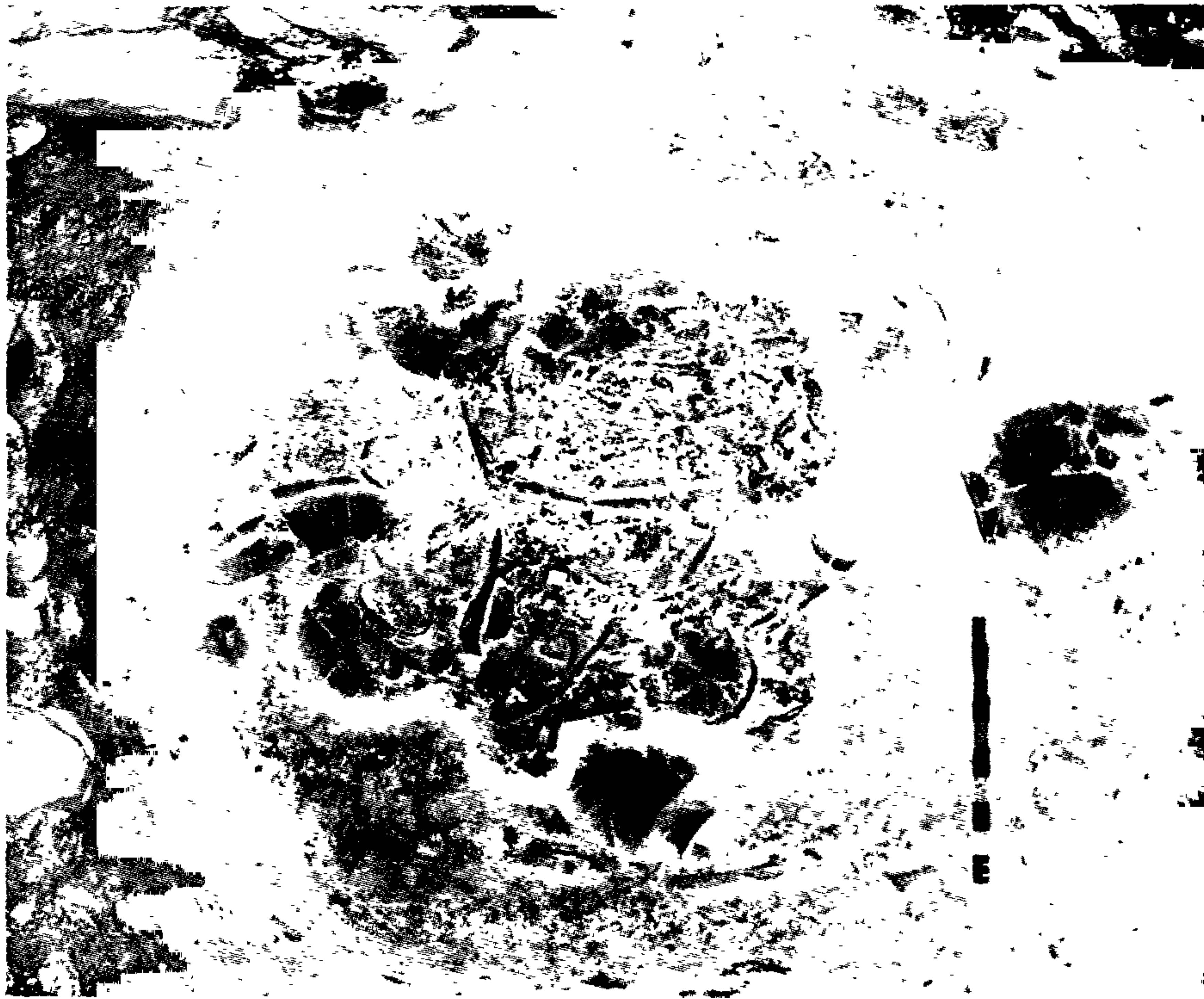
Grave—1



a. Pottery—after removal of Skeletal Remains.



b. Iron implements.



a. Skeletal Remains with Pottery.



b. Pottery after removing Skeletal Remains.

TADAKANAHALLI

Grave—2



a. Iron Axe.



b. Iron implements.

Grave—3



a. General View of Grave-3.



b. Multi-spouted pot, other pots, stone implements and Skeletal Remains.

↓ c. Urn-burial with pottery.



↓ d. Close up of Urn-burial.



TADAKANAHALLI

Grave—3

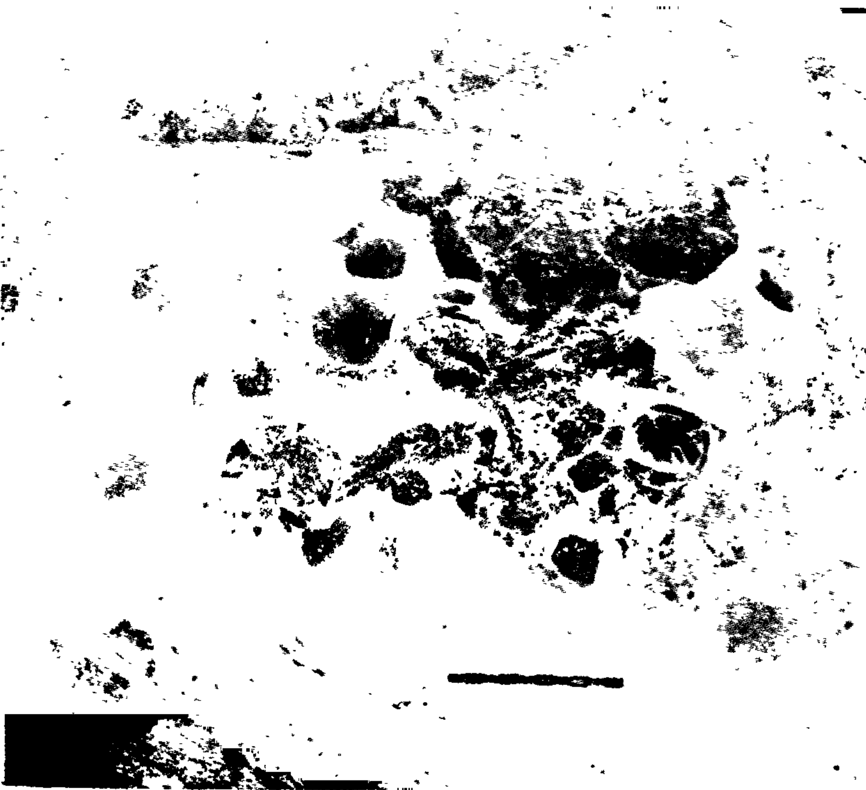


a. Multi-spouted pot.

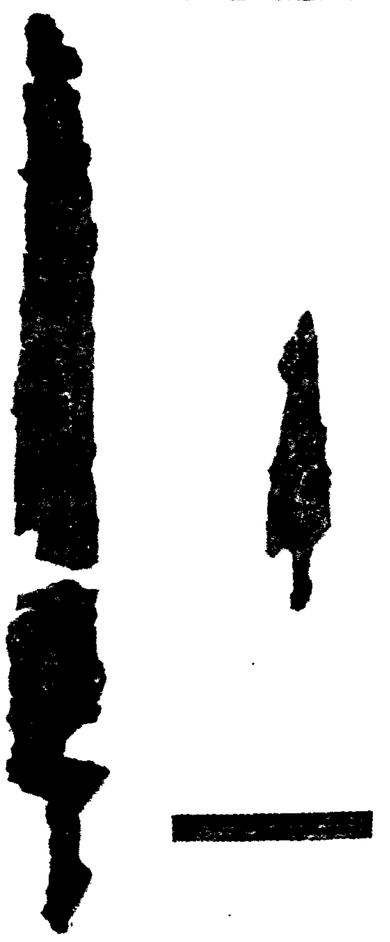


b. Iron implements.

Grave—4



c. Pottery and Skeletal Remains.

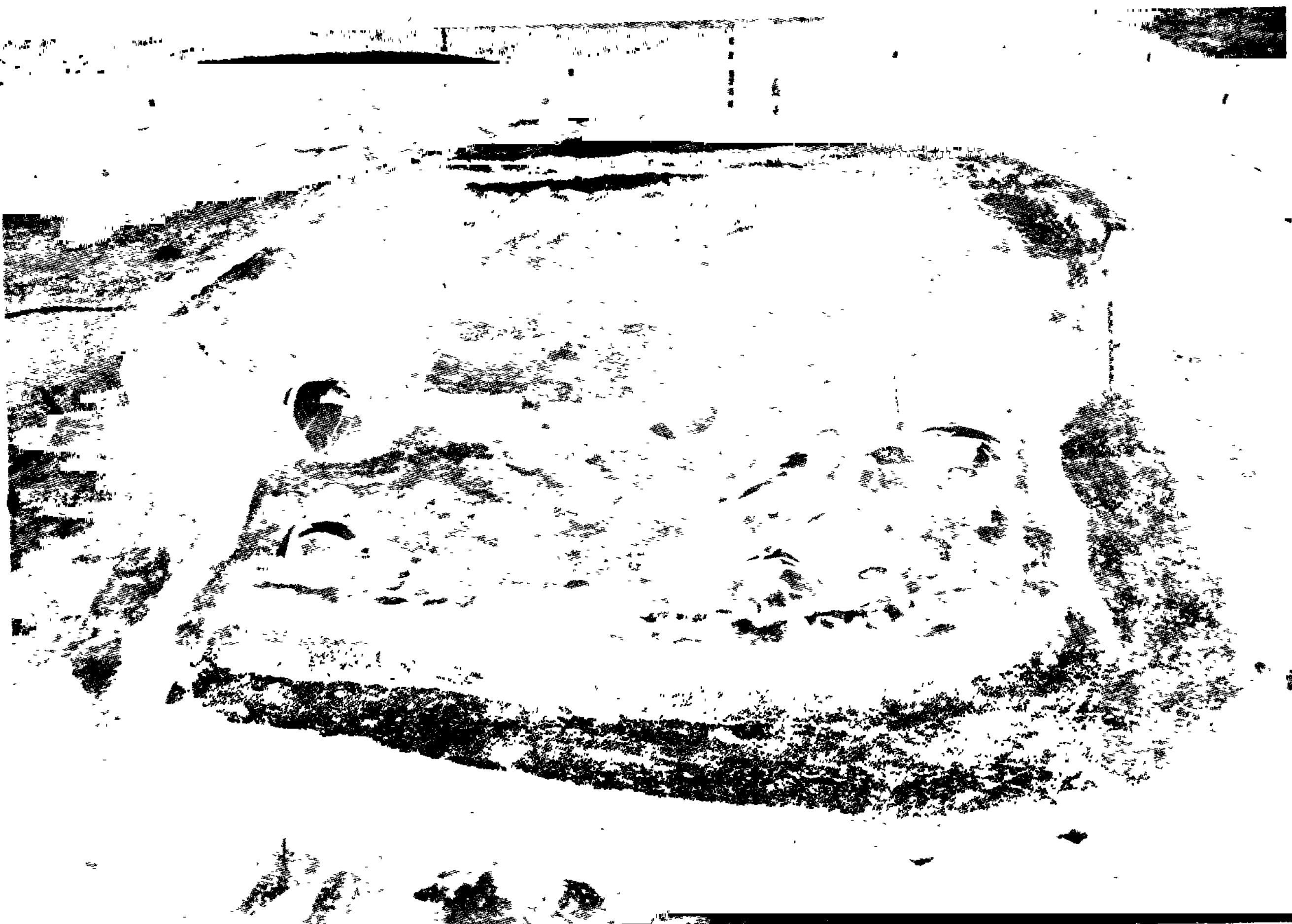


d. Iron implements.

DAIMABAD (Ahmednagar District—Maharashtra)



a. General view of Kiln No. 1 (fore-ground) and Kiln No. 2 (in the Section).



b. Kiln No. 1 from West (mark the charred logs in the gravel filling).

a. Bird's eye view of Kiln No. 1.



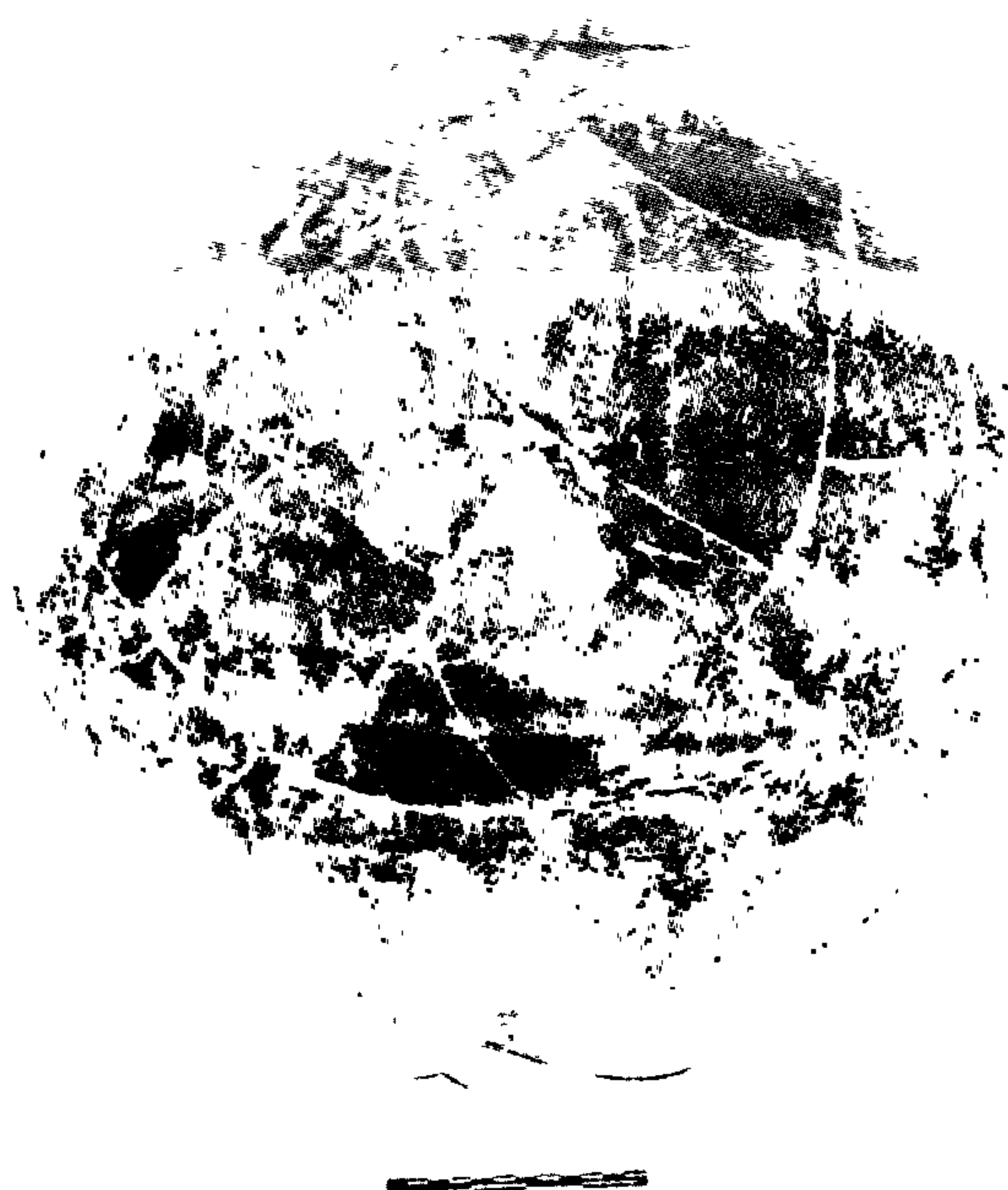
b. Three views of the jar found on the north-east corner of Kiln No. 1.



a. A pot with applique design.



b. A spouted vessel.

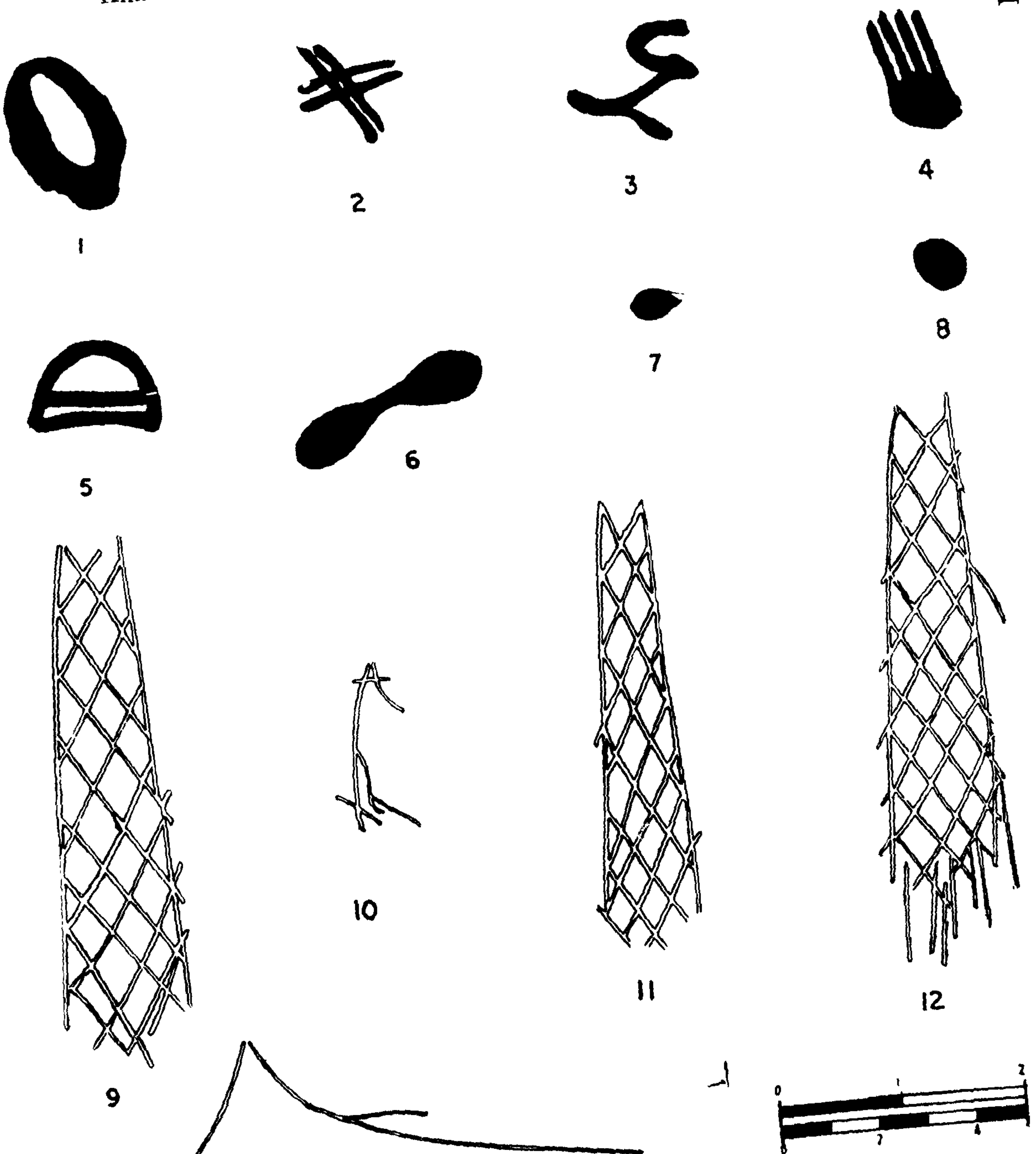


c. Painted vessel.



d. Painted vessel.

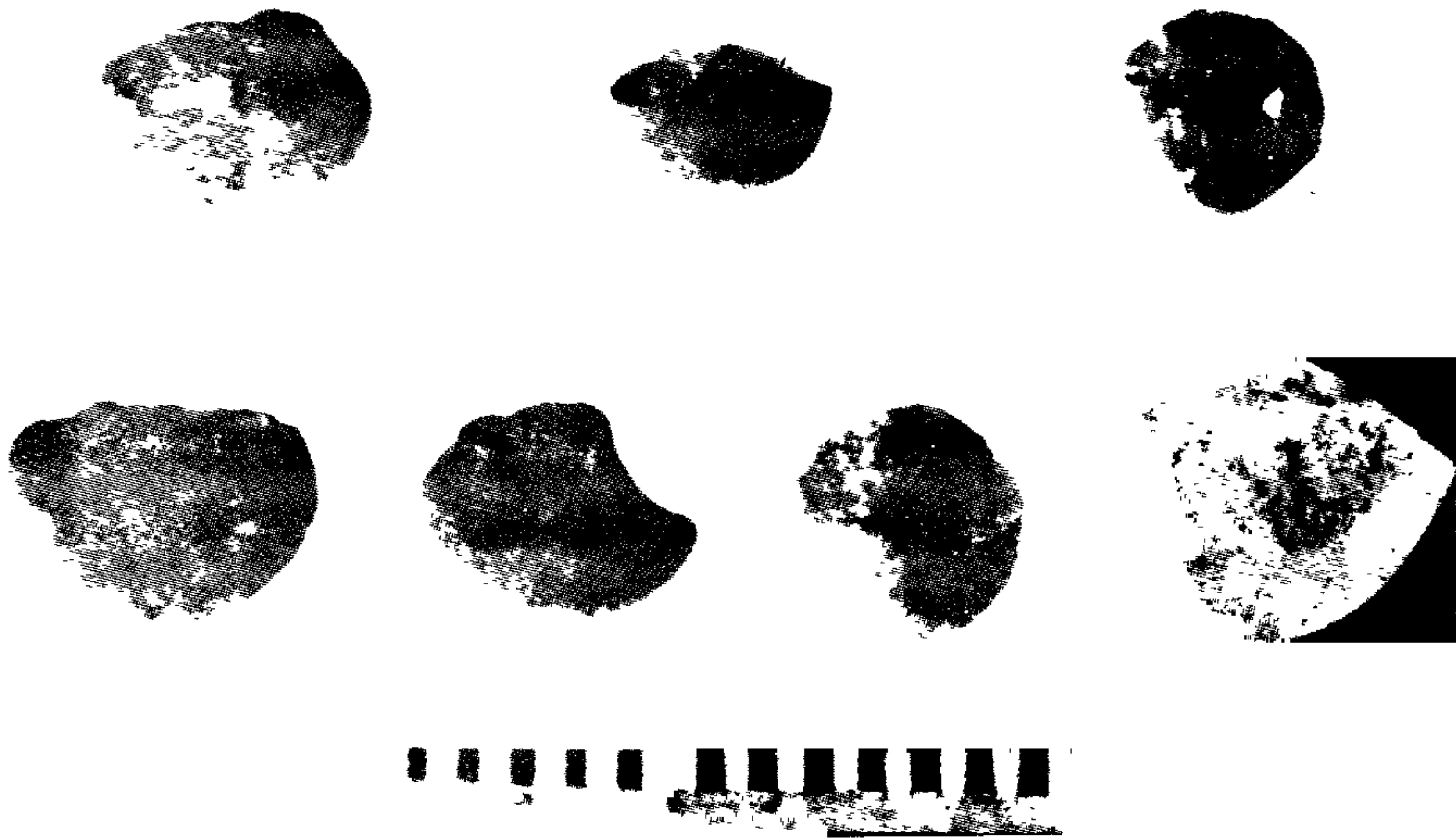
DAIMABAD
Kiln No. 1



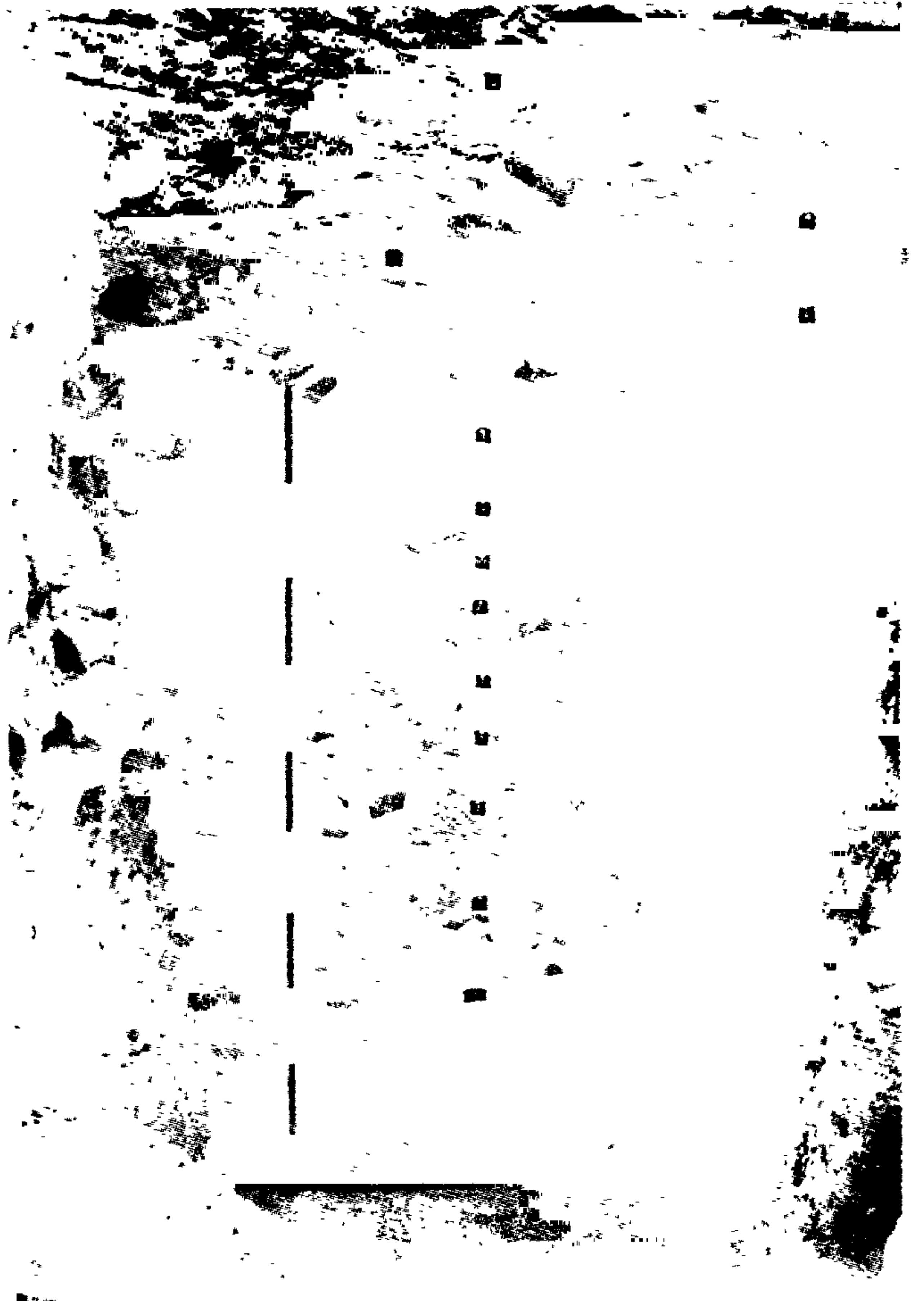
b. Potter's marks (painted) and graffitti.



a. A Painted jar.



a. Pebble tools from the eroded gravel at Srinagar.



c. Section showing cultural deposits at Ranihat.→



b. Round pebbles with fluvio-glacial marks at Swit near Srinagar; Section at Swit showing a deposit inter-bedded with disturbed primary rock.



d. Circular fire place at Ranihat, Period II.--



a. Painted dagger in white—Rock painting at Kimni—District Chamoli.

c. Buddha—Stucco from Moradhvaja.→





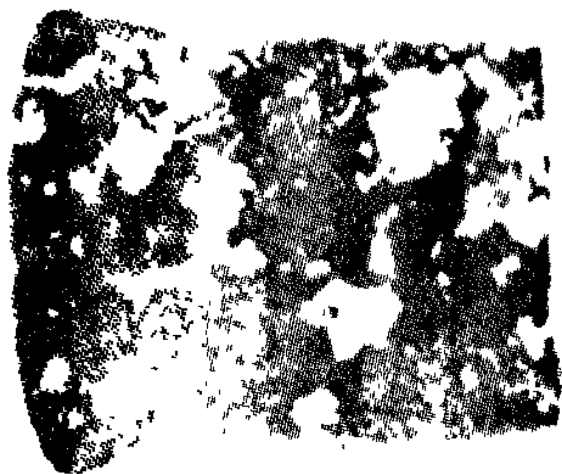
b. Building Complex, in the excavations at Moradhvaja.



d. Keshivadha by Krishna—Plaque from Moradhvaja.→

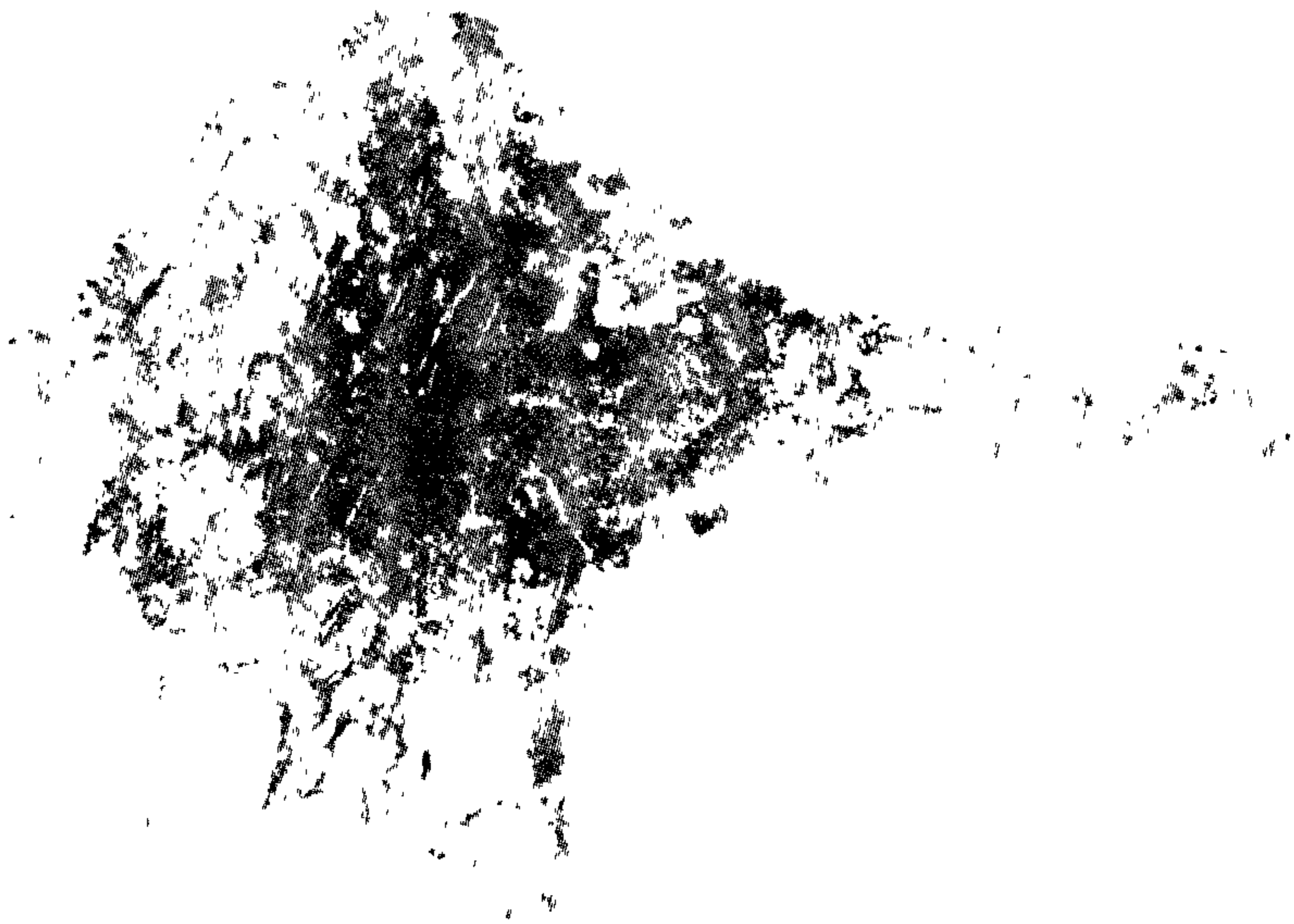
KIRATPUR COPPER HOARD





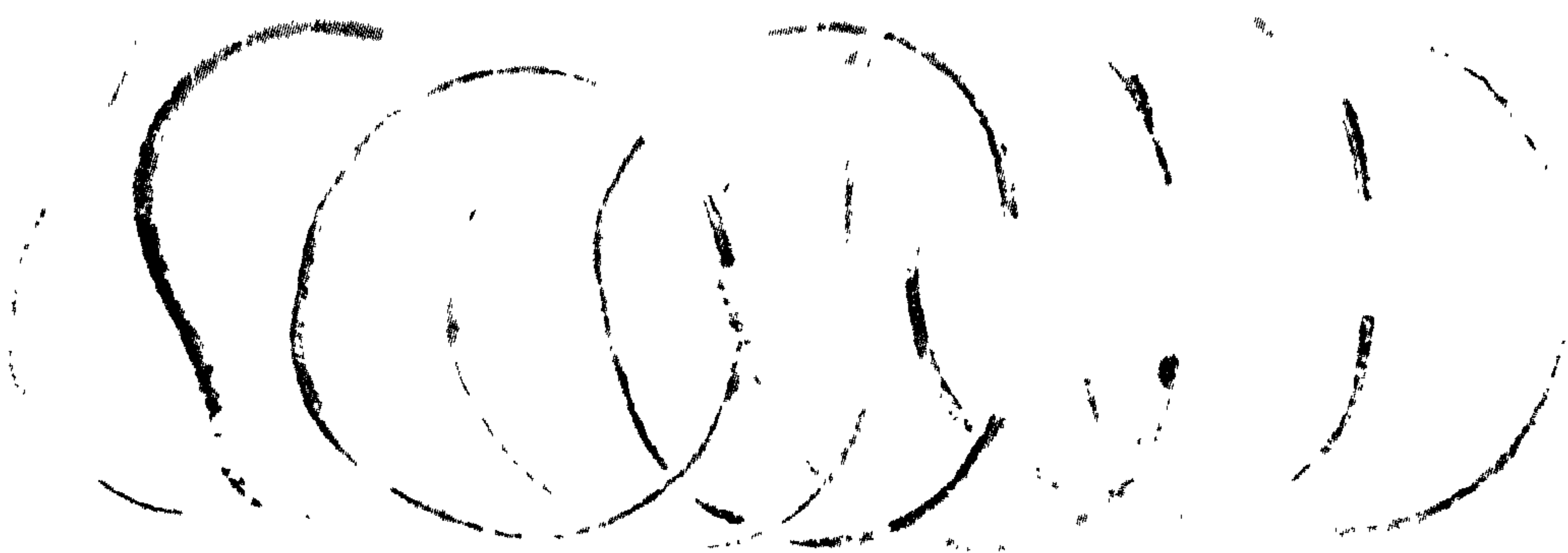


a. Copper celts.





b. Anthropomorphic figure.





c. Copper bangles.



a. O.C.P. Ware Sherds with graf. marks in the interior.



b. Incised pottery—O.C.P. Ware.

XVI

Antiquity of Gold Mining in the Gadag region—Karnataka

F.R. ALLCHIN

My interest in gold mining in ancient India arose in the early fifties while I was working in Raichur district. It was immediately stimulated by reading two works of Leonard Munn[1] but it was not until 1957 that I was able to visit any of the ancient mining areas myself, and then only one, the Hatti mine. Here I was able to study some of the antiquities discovered during the clearance of ancient workings. This led me to gather together materials relating to gold mining and to publish them in a short paper.[2] In the following year a valuable addition to the literature was published in the form of the proceedings of a symposium held in Bangalore in 1960.[3] Although this meeting was primarily concerned with modern aspects of gold mining, the papers contain numerous references to old workings, particularly around Kolar. In 1966 I visited Kolar myself and was able to make a study of antiquities discovered during the clearance of old workings. This material I have not so far published, it was at that time housed in the exploration Museum. It included quantities of pottery, some grey or brown and certainly not older than the sixteenth century, and some with a red slip. This latter appears to be older and I am inclined to assign it to the early centuries of the Christian era. There were also numbers of grinding stones and hammerstones, reminiscent of examples I had seen at Hatti and in the fields near the Hatti band at Gaudur. The suggestion that gold mining has been going on at these mines since early times is therefore already present in the study of the stray finds which have survived from the quantities which must have been discovered during the past century. The recent publication of a radiocarbon date for a sample of charred wood found in an old working in the Hatti mine (giving a date in the 8th century B.C.) extends the time scale suggested by two earlier published dates, and suggests an even greater antiquity than the objects we have studied.

Apart from Kolar and Hatti one of the most important areas of ancient gold mining appears to be on the Gadag band, to the south of Gadag town. Inspired by the accounts given by Foote,[4] Aytoun[5] and Maclaren,[6] I paid a short visit to one locality in 1966. I was escorted and guided by Dr. M.S. Nagaraja Rao, then of Karnatak University. The earlier writers had spoken of old shafts marked by shallow depressions in the ground; of heaps of crushed quartz; and of shallow depressions in the rocks accompanied by great crushing stones and hammerstones. These indications were said to extend for some eight miles, from Nabhapur through Kabulayatkatti to Sangli in a continuous band. The main concentration of workings lies about ten miles south of Gadag, to the northeast of the village Shirhatti. In this area modern gold prospecting began over a century ago and led to the formation of the Dharwar Gold Mines Ltd., who between 1902 and 1911 carried out mining operations at several places, notably at Kabulayatkatti. Since that date other areas have been explored, but as far as I am aware no further work has been done at Kabulayatkatti.

The areas is typical of the landscape of the Dharwar bands, low rolling ground with low hills and mainly gentle slopes, agriculturally barren, almost totally devoid of vegetational cover. In some places the level ground at the foot of valleys has been cleared and agriculture is carried on. About half a mile west of the gold bearing rocks there is a Lambadi Tanda. This small settlement is typical of the inhospitable sites chosen by the *Lambādis* and *Banjāras*, and indicates that it is of no great age. Mostly they appear to have been formed when the *Banjāras* gave up their role as baggage-carriers for the Muslim armies and, rather than return to their native lands in the north, settled where they happened to find themselves. We spoke to some of the inhabitants who still retain their original (North Indian) language, although nowadays *Kannaḍa* is their principal speech.

There are traces of gold working of several periods. First, there are those of the Dharwar Gold Mines Company. The adit leading to the main shaft was soon traced, and many spoil heaps of recently crushed rock. Similarly the site of the cyanide plant can still be recognized. The entrance to the adit was partly overgrown with thorns, but the rock cut tunnel inside was still fresh and clean. Inside we recovered several pieces of blue and white china and glass bottles, consistent with the date the mine was in operation. Next, we encountered several old shafts of irregular shape and considerably smaller than the Adit (which was cut to a regular, rectangular form). It is impossible to date these shafts without entering them and recovering datable objects in the debris. It may be that they are by-products of the Dharwar Gold Mines work. But this is certainly not the impression they give. The rocks around their entrances are weathered and altogether different from those of the adit. Thus we may probably conclude that there is evidence of a second period of working considerably older than the first. There is however evidence of a third period of gold working which must be very much older than the first and second. This is in the form of a large number of old shafts of small dimensions, completely filled and recognizable on the surface by shallow depressions and patches of vegetation which are greender or richer than the surrounding land. These are certainly much older. They stand out by their gently rounded contours and by the apparently undifferentiated weathering of the stones above and around them. These old shafts were the oldest we could discover, and they certainly call for further investigation.

We remarked on the desolate nature of the surrounding countryside. From the top of the low hill on which the old workings are situated there is no near habitation visible, apart from the lambadi Tanda, to the west, and the village of Kabulayatkatti itself, a mile or so to the east. There is however the site of an ancient settlement in the valley immediately to the east of the workings, and this we examined. It appears as a low mound, approximately square and protected by two ruined dry stone towers. One can still make out the ruins of the surrounding walls and of some houses inside. There is still a shrine of *Māruti* in worship apparently of no great age. Sherds of buff-brown pottery picked up in the area suggest that the settlement goes back to medieval times, on perhaps to the Vijayanagara period. In the field walls around the settlement many crushing stones and hammerstones were noticed, indicating the occupation of the inhabitants of this settlement. The presence of a fortification is quite typical of the vicinity of a mine, and this feature has been noted near old workings elsewhere in the ancient world. Also in the settlement area and in the fields around it sherds of red slipped ware and of black burnished pottery were discovered. These appear to belong to a much earlier date, probably to the first centuries A.D., or even B.C. They point to the importance of carrying out an exploratory excavation at this settlement, as its history must be directly linked with the early history of gold mining at Kabulayatkatti.

In conclusion, may I remark that there appears to be a good case for the establishment in India, probably at the national level, of a specialist team of archaeologists, perhaps attached to one of the schools of mines, who could carry out the investigations required in order to establish the age of the ancient shafts at Kabulayatkatti, and other sites. The intrinsic interest of the history of copper mining, no less than of gold, makes such a team desirable. Ordinary archaeologists are not properly equipped for the potentially dangerous work involved in clearing old workings, and the team would require the active participation of some persons properly trained for it.

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B. Historical Archaeology

XVII

A Two Thousand Year old Town and its Architecture, in Vadgaon–Madhavapur (Belgaum) in Karnataka

A. SUNDARA

HISTORICAL BACKGROUND

In North India excepting the architectural remains of the Harappan civilization, one may glean some vague information about the architecture of the region in the pre-Mauryan period, only from the descriptions of the modes of construction of Vedic altars from *Śulba sūtras*, from the grand accounts of towns and mansions in the early Buddhist Connon[1] corroborated by the fine carvings of fortified towns and Buildings[2] on the railings of the *toraṇas* and balustrades of the Buddhist *stūpas* such as at Sanchi, Bodhgaya, Bharhut, etc., of the post-Mauryan period. From the period of Aśoka, the Mauryan emperor (*c.* 273-236 B.C.), began vigorously the architectural activity distinctly characterised by the dexterous use of stone, besides bricks as evidenced at Lomas Risi and Sudama rockcut caves and the *Mahāstūpa* at Sanchi, respectively.

But in South India, in the historical period, it was probably not untill from lst century B.C. that such activity began in the lower Krishna and Kaveri valleys. Some idea about the architecture, secular and religious, could be had from the sculptural representations from Amaravati[3], Nagarjunakonda[4], etc., and from the descriptions of the cities such as Puhar, Madurai of the Chola and Pandya Kingdoms, in the early stratum of the *Saṅgam* literature. But all these are datable to the first two or three centuries of the Christian era.

The region of Karnataka could not boast of even such cultural vestiges, literary or archaeological, till recently. As such her saga of architecture was presumed to have begun with the Chalukyas of Badami *i.e.*, from 6th Century A.D. But during the reign of Aśoka, *Isila* in the proximity of the present Brahmagiri (Molakalmuru Tk, Chitradurga Dist.) was the southernmost known provincial headquarters of his empire. *Mahāvaṁśa* (*c.* 4th Cen. A.D.), a Ceylonese Buddhist chronicle mentions Vanavasi (Banavasi) as an important centre to which Aśoka sent his Buddhist mission under the leadership of *Rakkhita.* And from Banavasi had gone *Mahāthera* Chandragupta with 80,000 *āchāryas* to Ceylon to the inauguration ceremony of the great *stūpa* got constructed by Dutthagamini (101-77 B.C.), the Ceylonese king. In the post-Aśokan period, there were many places of commercial importance along the coastal strip such as Honnavara, Udyavara, Mangalore, etc., and in the up ghat region such as Banavasi, Badami, Aihole, etc., as known from the *Geography* compiled by Ptolemy (*c.* A.D. 150). All these references imply that these parts had already attained cognisable degree of civilization. But neither these references were descriptive nor material remains there were discovered giving some idea about the towns and buildings. However, excavations in 1928 in Chandravalli (near Chitradurga)[5] had disclosed the remains of a township of 1st-2nd Centuries A.D. Further explorations and studies of the Buddhist site at Sannatti[6] (Chitapur Tk, Gulbarga Dist.) since its discovery in 1956, and excavations in Banavasi[7] in 1971 and particularly Vadgaon-

Madhavapur[8] in 1972-78 throw a welcome light especially on the architecture of the first two centuries of the Christian era and thus remove a grave lacuna in the knowledge.

EXCAVATIONS AT VADGAON-MADHAVAPUR

The excavations for the past seven years at Vadgaon-Madhavapur have revealed remains of religious and secular of brick structures of varieties and intelligible types. They give a fairly clear idea of how a flourishing township existed here in those days.

SITE : LOCATION AND DISCOVERY

Vadgaon-Madhavapur, is a suburb of Belgaum city. Here an extensive, ancient human habitation site located between Madhavapur (east) and Vadgaon (West) was first noticed in 1945 by Sri R.S. Panchamukhi[9]. He also reported finding of a hexagonal pillar inscription in Brāhmī script palaeographically of *c.* 1st Century B.C. of considerable importance[10] from this site. For, it throws some light for the first time on an important cultural aspect viz., practice of the vedic rites till then unknown in this region. The epigraph speaks of the performance of Vedic sacrifice *Vājapeya*, by a *brāhmaṇa* of *Kāśyapa gotra.* In the site extending to about 40 hectres, are noticed remains of brick structures exposed here and there, pottery, tiles characteristic of the 1st-2nd Century A.D. The central area of the southern part of the site is elevated and is the highest (about 750 m MSL) and the remaining area is at a lower level (about 747 m MSL). The former is sloping northwards and has a mango-grove on the slopy part. Along the western and northern edges of the site are remains of what looks like a mud fortification. On the western side is a *nālā.* The mud wall on this side was found to conceal the back wall of a brick structure. It was perhaps raised later.

In 1964, potin coins were collected by the author.[11] One of them bore the name of a Śātavāhana king, legible partially reading *Siri Satakani* (Śrī Śātakarṇi) in Prākṛt language and in Brāhmī script of 1st-2nd centuries A.D. ascribable to the feudatories of the Imperial Śātavāhana kings ruling from Pratiṣṭhānapura (modern Paithan). The types and characteristics of the pottery, brick buildings and the datable coins indicated existence of a township ascribable to the beginning of the Christian era. Luckily, the site to a large extent is found without the cultural debris of subsequent human habitation. Thus the site is and was found to be ideal for large scale excavation for understanding the material culture of the people of the period.

THE EXCAVATIONS

With these objectives in view, archaeological excavations were conducted during March-May 1972-78 by the Department of Ancient Indian History and Epigraphy and the Kannada Research Institute, Karnatak University, Dharwad[12].

During the course of excavations remains of about 30 brick structures, various types of pottery, beads of different materials, terracotta figurines, metal objects and about five hundred potin and copper coins as well as a few punchmarked coins and a Roman coin were unearthed. For proper understanding of the extent and the spread of the culture the site has been roughly divided into three parts Area (Site[13]-I), Area (Site-2)-II and Area (Site-)-III. Area-I covers the southern part of the site including the mango grove, at the highest level. Area-II is the northern highest part on the other side of the grove and Area-III is the low-lying part of the site. Two trenches one in Area-II were dug upto the natural soil that revealed a complete sequence of three phases of the early historical period. Besides, section scraping in the same area and Area-I and Area-III have provided a regular sequence of occupation. All the sections have disclosed uniformly a sequence of three phases of early historical period but varying in thickness excepting the scraping (Tr. 7a) in which only the last two phases of the period are revealed.

STRATIGRAPHY AND DATING

The cultural debris varied from about 2.5 m to 4.25 m deep. In accordance with the varying density, texture and colour of the debris, the assemblage of the material remains and their characteristics in it

through the depth, it is horizontally divisible into 9 layers of varying thickness. The first four layers from the top contain brick structural remains, brick-bats, Potin and Punch-marked coins (in the lower layers), pottery of predominantly red ware and of black-and-red ware including russet coated white painted ware, cups of coarse redware and sprinklers of red polished ware, terracotta figurines and terracotta beads in large numbers, besides stone beads etc.

Owing to the distintegrated brick-bats, the layers are dark reddish brown. In the next four layers, no structural remains, coins, pottery of red polished ware and cups were encountered. Pottery of redware and black-and-redware are more or less in much less varying proportions. Beads of a few semi-precious stones jasper and agate appear to be a little more numerous than those of shell, terracotta. Remains of only rammed floors of earth made periodically are found. The layers consist of ashy black streaks and more ashy in colour. The lowest *i.e.*, 9th layer resting on the natural soil of disintegrated laterite, is thick clayey and very ashy. The black-and-redware pottery appears to be more. The pottery of this fabric is highly polished resembling the 'megalithic' black-and-red ware. Beads of semi-precious stones, shell, terracotta are still fewer. There are no indications of even rammed floors. Thus three distinct phases can be distinguished. In the northern part of the site with less cultural debris in thickness, the excavated trenches revealed only the middle and the last phases of the culture in varying proportions.

In the first two layers of the uppermost or the last phase, the datable evidences are the coins and the red polished ware, a distinct pottery. Among the potin coins a few have legends in Brāhmī script such as *Rāño Gōtami Putasa Viḷivāyakuras* (a feudatory to Gautamiputra Śātakarṇi *c.* A.D. 80-104), *Vasiṭhiputasa* (Vaśiṣṭhiputra Pulumāvi *c.* A.D. 105-129), *Siri Satakaṇi* (probably Yajña Śrī Śātakarṇi *c.* 170-199 A.D.) and "*Mahāraṭhisa Kurasa*" (One of the feudatory rulers of the *Kura* family). The legends are found along the margin of the coins, enclosing bow with arrow aimed on one side and hill with a tree enclosed in railing and a river below on the other. The fragments of sprinklers of red polished ware found in large numbers in the northeastern part of the site also corroborate the dating, as the type is known to be of Roman influence. Hence this phase can be dated from the middle of 1st Century A.D. to the beginning of 3rd Century A.D. In view of the thickness almost equal to that of the overlying phase and of comparatively the slow process of accumulation of the debris, the middle phase may relatively be dated from 2nd century B.C. to the middle of 1st century A.D. The early or lowest phase containing highly polished black-and-red ware (a characteristic feature of the pottery in Mauryan levels in north India) may be assigned to about 3rd century B.C.

THE CULTURAL REMAINS

The pottery are essentially of three kinds : the bright red ware, the coarse red ware and the black-and-red ware. Various medium-sized pots, vases, jars, basins are of bright red ware; cups flat based and with tapering sides, lids with flanged waist, jars are of coarse red ware; and small vases and bowls, dishes are of black-and-red. In the latter variety usually the upper exterior side of the bowls and dishes are decorated with painted designs in white under russet coating. This ware, popularly known as Russet-coated white painted ware is characteristic of the period between 1st century B.C. and 2nd century A.D. Sprinkler, is usually of red polished ware.

Beads of different semi-precious stones such as carnelian, agate, lapiz-lazuli, jasper, translucent green stone, coral, shell, glass, terracotta etc., indeed speak highly of the skill in the lapidary art. There is a variety of shapes such as hexagonal biconic; long barrel shaped; octagonal; flat barrel shaped collared; cylindrical; oblong square; spherical etc. The main source of Lupiz-lazuli appears to be Badakshan area in Afghanistan. The occurrence of the beads of Lapiz-Lazuli indicates trade contacts between ancient Afghanistan, north western and south India. The carnelian beads are infrequently etched with linear designs, the etched lines being filled in with white paste. The ear ornaments included rings that could be hung with thread or large disc-like objects with flat concave edges so as to fit in the large ear-lobes resembling the palm-leaf scrolls worn by Kerala women even now. Among the terracotta beads areca-nut shaped, spherical and barrel collared beads, particularly the first two, are the most common. It is

interesting to note that about 35 small spherical beads obviously of a chain were found in a spot close to a residential building.

Terracotta figurines found are of different kinds humans, animals and birds. Plaques representing puranic episodes, are quite interesting, though unfortunately fragmentary.

Of the human figures there is a head with smiling face, thick lips and bare top (Pl. XXIV a-2). Another has a beaded strap round the forehead and the third has well-plaited typical head-gear (Pl. XXIV a-3). A seated human figure is decorated with horizontal band on the fore-head and a *hāra* (Pl. XXII b-3 top row). Besides, there are fragments of figurines such as human feet wearing heavy anklet (Pl. XXIV a-1). All these figures recall in style those of the Kushana period from some sites like Ahichchhatra etc., in north India. Most of these are hallow figurines produced by double moulds.

The circular flat medallion (Pl. XXIII c) with one hole at the top, contains within two embossed concentric circles on the edge, three human figures. The central figure the tallest of all, has actually kicked at the chest of the other on his right, who holds what looks like a twisted rope in the right hand and is falling backwards owing to the kick. To his left is a young boy with folded hands. The depiction reminds the bold and large sculptural representation of Śiva as *Kālāri* saving the devout but destined to be shortlived *Mārakaṇḍeya* from *Yama*'s noose. Hence in all probability it represents this celebrated Puranic episode. The style of the forms of the figures is closely akin to Amaravati style. There is another similar broken plaque with a lady standing by the side of a bird on one side and circular lotus freize on the other.

Fragments of a fully caprisoned horse is another noteworthy figurine for its rich details comparable to a similar horse recovered intact from the site of the contemporary period in Kondapur (Andhra Pradesh). A flat bottomed conical circular object (Pl. XXIII d) has double human face at the top and a series of couchant bulls on the sloping sides proportionate and clear in depiction, probably forming conical finial over a figure. Similarly there is another of the same type with wavy floral design and birds. Again this is in Amaravati style.

A hollow terracotta human head is distinct in style (Pl. XXIII e). It has a polished black slip. On the head is *Uṣṇīṣa*. The plaited hair is indicated by the intersecting incised horizontal and vertical lines on the back and twisted ringlets on the top. Narrow forehead, with sharp features, fish like eyes with small circular depressions at the centre indicating the eyelets, angular nose with well-marked nostrills, thick long lips, rounded chin, flat elongated ears are indeed characteristic of the figurine. At the moment, it has few parallels from elsewhere. It was found in a pit of very late medieval period but certainly from the original cultural debris disturbed when the pit was cut. Evidently, it depicts the Buddha.

Another human figure (Pl. XXII b-1) headless and with broken hands and legs is similar in type and form to the stone standing Buddha images with the right hand in *abhayamudrā* of Western Indian rock-excavated Buddhist Chaityas as at Ajanta, Kanheri etc. Another standing male human figure similarly broken wears *yajñopavīta* (Pl. XXII b-1). These two are solid figures produced by a single mould depicting only the frontal side.

The other interesting figurines from the site are what looks like a *Śivaliṅga*, cylinderical and tapering towards the pointed rounded top with flat base, fixed into a circular hollow cup with stand (Pl. XXIII a); *Nandī* with broken snout (Pl. XXII c-3) and another finely modelled burnished black slipped *Nandī* but strangely enough without tail (Pl. XXIII c).

A female human bust solid and in the round, though small, is graceful in its simplicity and youthful appearance (Pl. XXII c-5). Similarly another human head partially hollow has a peculiarly U-shaped incised line on the fore-head, having a vertical line within. Another interesting figure is a bird with stand. The head of elephant is simply marvellous for the realistic modelling (Pl. XXIV e). Besides the spout of a pot in the form of raised elephants trunk, the loop handle shaped as a lion standing on the hind legs and gaping mouth, of a pot (Pl. XXII c-1); an indistinct bas-relief of two handed *Gaṇeśa* (Pl. XXIII b) on the exterior of a pottery vase obviously meant for religious purpose are noteworthy. One of most interesting objects is a heavy rimsherd of a red ware vase, thick and wide, having an embossed design of man driving an elephant (Pl. XXIV b). This immediately recalls a cylinder seal having the negative

impression of similar design from Maski and similar representation on the shoulder of a red ware pot, both from surface collection.

An interesting tiny metal figure is a copper seated lion, with mouth partly open. Though very small the features such as the mane are so clear that they testify to the high skill in casting and engraving.

It is particularly noteworthy that ivory dice and a terracotta pawn (Pl. XXIV d) are found in the area of a street. The dice are square in section about $\frac{1}{2}$ cm to $1\frac{1}{2}$ cm and 2 to 7 cm long. Invariably two concentric circles with a dot at the centre are engraved in consecutive numbers from 1 to 4 on the four sides.

More than 500 coins mostly from and near the brick buildings have been recovered. They are of five kinds : punch-marked the potin copper coins of the *Sātavāhana* times and *Kṣatrapa* and Roman coins.

The punch-marked coins about five found in the lower layers of the last phase, made on thin sheet of base silver or silver coated copper, on which are punched five symbols such as the sun, hill etc. They are generally squarish or rectangular or polygonal. Such coins were in use in North India from 4th century B.C. onwards and in the South during 2nd century B.C. and 2 century A.D.

The other class of coins of potin and of copper, are circular and of various sizes, containing symbols such as hill with river and/or tree within railing, etc. on one side and in a few cases the names of the *Sātavāhana* rulers such as those of *Vasiṭhiputa* or of their feudatories "*Mahāraṭhisa*" around bow and arrow on the other side. They are the largest in number.

The copper coins highly corroded about 200 in number were exclusively found on and near a specially made street in Area-III. Although the legends and other symbols thereon, if any, are illegible, the Ujjain symbol on one side, invariably found on them is a noteworthy feature. On some of them the figure of an elephant is found.

A few circular terracotta moulds with illegible negative impression recovered from the site appear to be the moulds used for casting coins. On the well cut raised edge are thin hollowed lines across at regular intervals. Probably two such moulds were used for the production. After pouring two such moulds were used for the production. After pouring the moulten metal into one of the moulds, the other is immediately placed on it so that the hollowed lines on the both should coincide with each other for allowing air bubles and extra moulten metal to flow out.

A few Iron objects such as nails, bolts, knives, were also found. Besides, a large copper object consisting of thick solid wires bent into a curious shape was found in one of the granaries near a building. Its shape and function may become intelligible after chemical cleaning and restoration.

Mention may be made of the occurrence of two polished stone axes with pointed butt end, of dolerite from the upper part of the last phase in Area-II. Undoubtedly they are stray survivals from a nearby chalcolithic site which is to be traced.

ARCHITECTURE

The brick structures exposed are all of the uppermost phase and thus are datable between the middle of 1st century A.D. and 2nd Century A.D. They are located in different parts at the higher and the lower levels of the central area of the site extending over an area of about 30 hectres. Three of them are found to have been partly enlarged and partly raised over earlier structures.

I. *Religious (?) buildings*

From the circumstantial evidence and the type of plans, two structures appear to be religious in function. They are located at the highest level in the central part of the southern mound (Area-I).

1. The extant part of the larger one (Pl. XVII b) is approximately 14 m × 22 m in area at the maximum. The western part had previously been destroyed in the course of digging of very large and deep trenches for brick-making by local people. Similarly the extending walls on north, east and south were also disturbed considerably. What is extant therefore is only a probably major part of a big

building consisting of several appartments. The extant part consists of a room and a large hall and an adjacent room, a narrow oblong hall respectively on their northern side. The room is squarish (4 m roughly) but neither the sides nor the corners are exactly equal. In the middle but nearer the northern side is a square (1.20 m) bricklines pit about 3.05 m deep probably a granary. The bottom floor was probably paved with bricks. There were four pist holes at the corners at the square opening of pit. This room and the adjacent hall had brick paved floors.

The northern wall of the room extended westwards parallel to another wall abutting the western wall of the room, the width in between the two being 2.40 m. These two walls seemed to be a part of another room which was destroyed. There was entrance (72 cm wide) from this room to the one with granary.

On the southern side of the room there was a big room as indicated by the extended broken walls. This room was provided, on the exterior, on the easternside, brick-lined drinages for the flow of waste water. The hall (7m N-S × 9 m E-W) was nearly rectangular. A partition wall, probably a parapet nearer the northern wall, divided the hall longitudinally into two unequal compartments. On the south-east corner in the northern compartment, there was a square pit (1.60 m), 1 m deep with bricklined walls. On the northern side was a thin wall (about 35 cm thick). It had a brick paved floor. It might have been a water cistern.

In the northern compartment near the north-east corner was found a deep brick-lines square pit (60 cm), probably a sokage pit.

The adjacent room (3.40 × 4.0 m) and the oblong hall (2.80 m×3.20 m wide) on the northern side probably are subsequent additions. For while no space is left between the walis of the adjacent rooms, a gap of 80 cm wide is found between the walls of the halls and on the southern side, the room has a separate wall abutting the northern wall of the room with granary.

On the eastern side was another hall about 7 m long and equally wide. The hall near the north-eastern side had retained part of brick flooring and near the south-east part is an oblong brick lines pit (1.00 m × 1.40 m) probably another storage granary.

From structures, fragments of domestic articles such as pottery vessels, were scarcely found, but some coins and a few beads and terracotta figurines were got. Clearence of the sokage (?) pit as far as possible yielded cups of coarse redware with flat base, flaring sides, in hundreds. And from the granary were got a few pieces of animal bones and pot-sherds.

The excavations revealed that the western part of the structure was overlying an earlier structure. Some of the walls of the lower structures were wide providing strong base for the overlying structure.

2. *Apsidal structure* (Pl. XVII a) : Immediately to the south of the structure 1 described above, was an apsidal structures as seen from the partial curved wall. Its hall was about 7.50 m wide. Presumably it was at least 7 to 8 m long. The apsidal part is 3.75 m. deep. It resembled similar apsidal structures found in Brahmagiri[14] and Banavasi.[15] It appeared to be slightly earlier in construction than the large structure 1.

II. *A long street* (Pl. XIX b)

In area-III a section of horizontal series of very well rammed and superimposed beddings of small pebbles and brown earth (Pl. XIX a), was previously exposed. Excavation here revealed that the well rammed superimposed beddings was very extensive and was oriented east-west. An area of 10×8 m of the bedding is distinctly clear, but the remaining part of about 30 m long is found in patches. The beddings are on average about 7 m wide. In fact they appeared to be still more extending particularly at the western side. Further explorations of the site in the eastward direction led to the discovery of such well-rammed hard bedding in the section of some manure pits behind the residential buildings in Madhavapur area at irregular intervals and in the same alignment. The distance in between the manure pits and the trench 5, Area-III in which these beddings are exposed is about 130 m. Near the mannure pits excavations in three trenches revealed exactly similar beddings. The total length of the exposed

out of the alignment of the earlier walls. The bricks of the original structure and that of the added, vary in size.

The original structure is raised partly on the remains of another brick structure. For, the northern end of the middle wall is found to overlie a brick wall.

The interior of the two rooms of the structure was previously disturbed. However, besides the usual pottery of domestic use, beads and potin coins, punchmarked coins were also found.

4. To the north-east of this building, another structure similar in construction to no. 2 was exposed. The whole structure is raised on a foundation of red murram and a bed of pebbles. It comprises of two rooms of more or less of about 3 m square, and an oblong hall about 1.75 m × 3.00 m on the northern side (Pl. XVIII a).

On the eastern side and adjoining to the structure is another wall extending beyond the structure on both the sides raised at the same level and of the same constructional pattern as that of the latter, but without the foundation bedding. On the other side of the wall are two square pits side by side and a distinctly oval shaped pit, all bricklined and deep respectively at northeast corners. One (1.60 m square) of the square pits is a well (Pl. XVIII b). And the other is also probably a well. The oval shaped pit is probably a granary.

5. A few meters northwestwards away from the above structure were found in layer 3 the traces of only the pebble bed of the foundation with two circular bricklined pits which may be granaries outside, close to the southeast corner of the structure (Pl. XVIII c). The ground plan of the foundation is similar to that of No. 4 described above.

6. About a .50 m north-east wards of no.'4, in layer 2, occurred fragments of a large brick building (Pl. XXI a). We encountered only parts of two adjacent walls, eastern and northern (11.50 m × 5.00 m) with patches of rammed floor on a bed of small pebbles; hand made tile pieces fallen in heaps on the exterior of the walls; a rectangular structure (2 m × 4 m) on the eastern side (Pl. XXI c); three circular pits, probably granaries (1.75 m. in diameter) on the southern side (Pl. XXI d); and a square bricklined pit (1.10 m^2), probably a well (Pl. XXI b).

The structure is raised directly on the hard surface of the site, without the pebble bedding and red murram layer. From the area of the structure in and around, were got a large number of coins, varieties of beads of both terracotta and semiprecious stones such as jasper, lapiz-lazuli, particularly an impressive number of the long necks of sprinklers of red polished ware among the pottery and some interesting terracotta figurines.

The nature of the small rectangular bricklined pit, is not clear. Perhaps it could be a water cistern. Near the northeast corner of the pit outside, were got 33 small spherical terracotta beads of a necklace.

The granaries were side by side. From the westernmost granary, nearly a kilo of paddy was recovered. The large copper object of thick solid wires described above was also recovered from this granary.

From the occurrences of varieties of beads, coins, a special variety of delux pottery, the provisions of granaries, water cistern and the well, the building appears to have been for residential purposes (perhaps of an affluent person).

7. West of structure 6 described above, is a part of brick paved floor with raised border in the upper part of layer 2. Its remaining part was destroyed by the local people. To the southeast of this brick-flooring, about 2 m away, was a circular well that had mostly been destroyed in the course of digging by local people. A few beads, potin coins, fragments of earthern vessels were found from the floor area. The brick flooring may have formed part of a residential building.

8. About 2 m east of this platform was another building. Only the hind wall of a room with small parts of the side walls at the corners could be found, since the remaining larger part of the building had disappeared due to human vandalism. Behind the room were two bricklined circular pits, probably granaries.

9. In Area-III, was found a well-built back wall of a structure (in Tr. 2). The existence of this structure over-looking a deep, wide moat indicates that the moat-like drainage was not contemporaneous

with the habitation as the large part of the structure overlain by the debris was obviously destroyed owing to the excavation of the drainage. The structure appears to be on the southern side of the street, described above.

10. Further east, on the southern side of the street in Tr. 1, the remmants of the walls of at least two room brick building was exposed. They indicated pebble bedding at the foundation level. An interesting feature about this building is that on the top of the central wall large socket like depressions are found at regular intervals. These probably were meant for fixing wooden pillars.

11. Further east, on the northern side of the street were exposed two brick-buildings in Tr. 4 and 4A. The one (Pl. XIX c) in Tr. 4, consisted of two squarish rooms located adjacent to each other and an oblong verandah common to both. It has pebble bedding for the foundation. Subsequently a room is added on the eastern side of the verandah. In the centre of the room is a squarish platform (50 cm sq and 25 cm high) with a step on the western side smeared with fine lime. A little away from the south-western corner of the platform was found a large pot crushed without any contents. From the debris inside the room were found plenty of tile fragments and few potsherds. This indicates, that this room was probably used for some ritualistic purpose.

On the southern side of the room there appears to be a further addition of a room at a still later stage indicated by a single line of bricks and patches of well rammed floor in layer 2.

12. The other building in Tr. 4A located in between the above building and the street, is partly exposed. It is relatively of later date than the adjacent building as it was constructed at the end of the formation of the 3rd layer. It consists of a spacious hall and a room enclosing a circular pit, probably, granary and square well (Pl. XVIII d). The well originally was still higher. The extant brick-lining is found to a depth of 1. 25 m, *i.e.* upto the natural soft laterite base and from the laterite surface below the well is circular. In the eastern and western walls of the brick-lining of the well are sockets at the same level and at regular intervals meant for entering the well, a feature noticed for the first time in the site (Pl. XVIII d).

13. In Tr. 7 near the manure pits, on the southern side of the street are found the remnants of the lowest course of bricks raised on the pebble bedding of a structure.

Thus on both the sides of the street there were evidences of residential buildings.

IV. *Wells*

Wells associated with residential buildings are briefly described above. One of them located to the southwest of the apsidal structure was entirely exposed in section. The uppermost part of it (Pl. XVIII d) is disturbed. The disturbed top is about 2.00 m below from the present surface level. It can be ascribed to the latest phase of structural activity at the site. Externally it is 1.50 m in diameter, the thickness of the wall being 40 cm. The extact height is 4.50 m. How a brickwell is constructed is inteligible from this fully excavated well. A circular pit slightly larger in diameter than the brick-lining (in this case 1.70 m) is dug in the debris down to the very hard natural laterite. Thereafter, a brick-structure erected. From below the laterite surface bricks were not found necessary as the laterite soil itself is stony hard. Similar bricklined wells are found in considerable numbers in different parts of the site.

CHRONOLOGY AND GENERAL REMARKS

From the above study we understand that the use of bricks in the constructions of the buildings in the site was from the beginning of the latest phase of the habitation and continued almost upto the end of the phase. The excavated buildings belong variously to the three sub-phases, but mostly to the two early sub-phases.

The stumps of the walls with patches of lime plaster underlying the apsidal structure, the brick pavement closeby and the large structure no. 1; street (II, 1) as well as the residential buildings Nos. III, 1, 2, 3, 4 and 9 belong to the sub-phase 1 of the last phase and Nos. I, 1; II, 2 and additions to No. III, 3; III, 6, 11 and 12 to the sub-phase 2 and additions to No. I, 1, and the structural remains raised over the

apsidal structure No. III, 11 and No. III, 6 and 7 may be ascribed to the sub-phase 3. The structures of sub-phase 1, are mostly found in layer 3 a few being of layer 4 and those of sub phases 2 and 3, in layer 2. The structures of sub-phase 1 and sub-phases 2 and 3, may reasonably and respectively be dated to a period between 1st century and 2nd century A.D.

The structures of sub-phase 1, are mostly residential buildings simple in plan consisting of squarish rooms and oblong halls with tiled roof, obviously slopy, generally provided with water-wells and granaries, and a few being of public use.

They are raised on a well laid foundation of pebble bedding overlain with a layer of rammed red murram. Laying foundation of this sort was really necessary because the underlying layers of the middle phase were ashy and loose. The bricks of the walls were laid in courses of headers and stretchers alternately, a technique popularly known as 'English bond'. The well-burnt bricks used are usually of standard size *i.e.*, about 45×22×8 cms. The walls were usually of uniform thickness. Occasionally the walls were plastered with fine lime. The binding material was mud plaster. All these constructional methods are noticed in the contemporary brick structure excavated at the Brahmapuri.[16]

The corner angles and the sides of the rooms, etc., are slightly varying though they are meant to be square or rectangle on plan. Probably care was not taken to see that the diagonals were equal. The constructional method was empirical. These features are not peculiar to the structures of this site only but are common to those of the other sites including rock-excavated *vihāras* and *chaityas* in the Western Deccan.

It appears that in some structures the walls were not raised upto the roof, but to a small height like a parapet wall, having wooden posts at regular intervals. Presumably, in between the pillars bamboo mats or coconut arecanut branches with woven leaves were thickly placed upto the roof tied to the pillars. Walls of this kind are common even today in ghats.

The buildings of sub-phases 2 and 3 are usually large and assymetrical in plan and are provided with granaries, soak pits within the building. The floors were well rammed or brick paved. Most of the buildings are raised directly on the bare ground which was compact. For, the upper part of layers 3 and 2 are very compact consisting of coarse reddish brown earth and sometimes partly on the remants of the walls of the earlier buildings.

As in the case of the buildings of sub-phase 1, the plan of the rooms, halls continue to be slightly irregular. Also the bricks used for flooring are not uniformly of the same size and are not paved in a regular pattern. The thickness of the walls and the sizes of the bricks vary. Besides the standard size, bricks of various size 52×28×10 cm (used in the extended part of No. III, 3); 44×23×10 cm; 34×37×10 cms; 24×24×8 cm) are also used. For the walls, even broken bricks are used and the core is filled with brick-bats. In laying the courses of the bricks the earlier method is not generally followed. The small sokage pit in which square bricks (24×24×8 cms) are used is built methodically.

The binding material continues to be mud. For granaries and wells, three types of bricks were used : the wedge shaped, the curved, rectangular and oblong bricks of standard sizes.

The wells and granaries in which bricks of the first two types are used, are perfectly circular, and those in which oblong bricks are used, tend to be slightly oval.

The structures I, 1 and the apsidal structure were probably religious structures, possibly Buddhist. For, in the pillar inscription the word "*Bikhu Saṅghaya*" is mentioned.[17] This surmise is strengthened by the finding a terracotta human figure which appears to be that of Buddha in the debris overlaying the long walls a few metres away from the structure 1. The apsidal plan was commonly adopted for Buddhist *Chaitya*. Possibly the structure 1 may be a Buddhist *vihāra*.

Although the structural remains of the buildings studied above, scattered over an extensive area, are only some of the many buildings exposed, they do give a fairly good idea of the architectural forms of the earliest township in Karnataka. No doubt, they were the first practical essays on the structural forms of varieties in bricks in place of perishable materials. Hence they were liable to be defective in some respects such as a weak basement, imperfect and assymetrical ground plan etc. But they do reflect the attainment of a considerable degree of standardization, such as the invariable provision of the

basic amenities, water wells, granaries, and the enterprising attempts in the construction of large buildings, religious or secular.

If the identification of the enormously long superimposed beddings of red murram and small stone pebbles as street is correct, it is the longest and earliest known street in the peninsular India.

The occurrence of a terracotta head of Buddha and human figure resembling early stone sculptures of Buddha as well as the circular plaque representing the *Mārkaṇḍeya* episode, *Śivaliṅga* (?) on the one hand and the expression in the first line of the hexagonal pillar inscription of the site mentioning the "*Bhiku Saṅghaya*" as well as the performance of *Vājapeya* sacrifice by a *brāhmaṇa* of *Kāśyapa gotra* imply the prevalence of at least two religious sects : Buddhism and Śaivism and the Vedic rituals as well as the popularity of Purāṇic stories as early as 1st or 2nd century A.D.

In the varied types of the terracotta figurines, four styles in the modelling are discernible : the local or indigenous, the Kushana style from the north, the Amaravati style from the east and a distinct style indicated by the terracotta head of the Buddha the provenance of which is yet to be traced.

Likewise the various kinds of coins : the punch-marked coins, the copper coins invariably with Ujjain symbol, the potin coins, the Kṣatrapa and the Roman Dināra; the variety of the standard types of beads on semiprecious stones including lapiz lazuli, the occurrence of the widely popular representation of a man driving an elephant and coin moulds on the one hand and of the numerous granaries on the other would amply demonstrate the distant trade contacts that the town had established and the prosperous condition of the town as trade centre.

Thus the excavations of the early historical site at Vadgaon-Madhavapur have brought to light not only the development of a rural economy into a flourishing urban economy but also a flourishing town, promoting religious, artistic and architectural traditions of the land and attracting traders, skilled artisans from distant regions.

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XVIII

Early Historic Terracottas from Gujarat—A Study

C. MARGABANDHU

An over-all study of the terracottas of Gujarat belonging to the early historic times viz. from the third-second century B.C. to about the third-fourth century A.D. is yet to be attempted. So far there is no concise or connected account available in respect of the Early Historic art in clay modelling or for other materials in general. The details are mostly found in reports of excavation or explorations, part of them published in report form and others in brief as discoveries.

Now an attempt has been made to study them on the basis of stratigraphic evidence and place them on a connected historical sequence. The various art-forms and their importance has been traced out wherever sufficient proof exists. In respect of others, comparison is made of those repoited as surface finds wherever possible. Finally an assessment has been made of any cultural influence from regions nearby.

For a cultural study of such a nature Gujarat sums up the best feature of geographical composition. Gujarat consists of three natural sub-divisions *Ānarta* (north Gujarat and parts of Rajasthan), *Saurāṣṭra* (peninsula of Kathiawad) and *Lāṭa* (south Gujarat and Konkan). It had 'three or four fronts' to the rest of India and one to the sea. It had entrances to the ports of Persian Gulf and the Mediterranean World. The northern route lay towards Palanpur, and Abu road opening to Marwar; along Dohad-Ratlam route to east and north-east; Broach and Surat were on highway to south and Deccan plateau across the rivers Narmada and Tapti bringing the Konkan and the kingdoms of *Dakṣiṇāpatha* nearer to Gujarat.

Gujarat had an advantageous buffer in having Aravallis as a physical and cultural barrier[1] which was also responsible for its varied cultural phenomena. Its sea-shore was the gateway through which ideas, influences passed to and fro due to commercial and other intercourses. A series of influences entered Gujarat through refugees, immigrants from borders on all three fronts of land from the North, North-east and South, right from early times. All these cultural influences are revealed in the course of historical development and the effect of geographical environment is nonetheless significant. It is also revealed by the early political history of Gujarat, the records of which go back to about the third century B.C.

During the Early Historic Period the earliest records which throw light on the history of Gujarat—*Saurāṣṭra* are the fourteen Rock edicts of Emperor Aśoka at Junagadh. The place was governed by *Vaiśya* Puṣyagupta and later by *Yavanarāja* Tusaspha under Aśoka. The next recorded event which has a bearing on political history of Gujarat is the appointment of Appolodotus as Viceroy of one of the Indian provinces of the Bactrian kingdom after the conquest of India by Demetrias and his generals in 185 B.C. and also known from the coins of Eukratides, Menander and Appolodotus at Girnar in *Saurāṣṭra* and Broach in South Gujarat. In the subsequent political turmoil the Greeks were replaced by Partho-Scythians whose *satrapy* became later independent. One of them is the *Satrapy* consisting of Malwa, parts of North Gujarat and *Saurāṣṭra* with its capital at Ujjain.

Of the well-known rulers of Kṣatrapas, on the basis of coin evidence, Bhūmaka was succeeded by Nāhapana during A.D. 119-125. After the *Kṣaharatas*, the *Kardamakas*, a branch of the *śakas* conquered Gujarat and Malwa from the Sātavāhanas. The Andhau inscription refers to Rājā Chaṣṭhaṇa ruling in Śaka Year 52 (A.D. 130-31). The famous inscription of Mahākṣatrapa Rudradaman I mentions that Suviśaka, his Governor of *Ānarta* and *Saurāṣṭra* got the Sudarśana lake repaired. A clay sealing from Intwa also mentions Rudrasena I, another ruler of this dynasty.

After an intense political activity of the Kṣatrapa rule comes a period of political unsettlement during the early fourth century A.D. (upto A.D. 340), the rulers called themselves as *Kṣatrapas* only. This situation seems to continue ties their overthrow by the Guptas. It was, probably, Chandragupta II who invaded Gujarat. His successor Kumāragupta definitely removed the existing rulers and appointed their own viceroy at the ancient capital of Girinagara. It is well-known from Junagadh inscription of Skandagupta, the only known Gupta inscription from Gujarat. Gupta suzerainty was very short lived, since the area was lost with the break-up of the Gupta empire after the death of Skandagupta during A.D. 470.

From then on, Junagadh loses its political significance, as the centre of activity shifts from Junagadh to Valabhi, on the East coast of *Saurāṣṭra*. The historical events from about the third century B.C. to about the mid-fifth century A.D. opened up wider scope of cultural contacts between Gujarat, the south-east India and the Deccan and parts of Rajasthan as well as the Ganga Valley.

Some of the important towns which were prominent centres of political activity of the Early Historic period have been subjected to excavations that have revealed the cultural material of the times. Among a number of objects revealed from excavations, the terracottas also form part the best of the finds indicating an aspect of the art of the period. Terracottas as such here denotes, the human figurines, male and female, religious figures representing deities, folk cults and independant figures etc. Not many sites have yielded terracottas in number and content which is mostly due to the fact that not many sites representing settlements of the Early Historical period have been excavated on a large scale. Even among the excavated ones only a few sites have yielded terracotta figurines, which can form a cultural material for assessing the art content of the times. Some of the sites which have yielded terracottas are Akota, Amreli, Broach, Devnimori, Dhatwa, Dwarka, Kamrej, Karvan, Intwa, Malwan, Nagal, Nagara, Shamalaji, Somnath, Timbarva, Uparkot (Junagadh) and Vadnagar.

It is an academic question to reason out the absence of the artistic traditions in clay modelling in early historic Gujarat, whereas sites in contemporary Ganga Valley have been developing rich artistic traditions, both in stone and terracotta in this period.

Among those sites which have yielded terracottas, except Amreli in central *Saurāṣṭra*, other sites have not yielded them in such varied and distinct types. Even sites of south Gujarat, where the settlements are along the rivers Tapti and Narmada which have facilities of good clay as raw material, only few terracottas have been reported. Only during later times in the fourth-fifth century A.D. Devnimori, on the borders of north-east Gujarat along the river Meshvo, has yielded huge size terracottas representing Buddha, decorative bricks, etc. All these indicate, terracottas as an art-medium in early times was not consistently patronised, even though there were times of long periods of peace and prosperity.

During the Early Historic period, the earliest evidence of clay-modelling art in Gujarat, does not go earlier than the second century B.C., more or less contemporary to the Mauryan rule or a little later. Though the scene of early activity is concentrated near Junagadh and Girnar as well as its neighbourhood, the head-quarters of the Mauryan-provincial rule, yet it has not yielded much to support the art tradition of the Mauryan times.

The remains ascribable to the Mauryan times[1] pillars, caves and rocks—including the Asokan rock edict indicate a prospect of the traditions of art, otherwise revealed during the *Kṣatrapa* period.[5] The brick-built *stūpa* at Boria and at Intwa[6] (Girnar) clearly reveal a well-known tradition which could possibly go earlier.

Some of the terracottas datable to the second and first century B.C. are reported from Central and South Gujarat. They are called 'Mother Goddess' figurines if they have female features and 'crude

figurines' if they are male. They consist of figurines which possess pinched face, short upper arms, breast with 'diffle-type' lower parts. Some of them have rounded lower portions without legs. Their look is almost hieratic. All of them are hand-modelled with a flat-back. They are fired to both black and red colours. They are reported from Dhatwa,[7] Nagara,[8] Somnath[9] and Timbarva[10] (Fig. 18).

None of them have been found *in situ* conditions of their use but their occurrence is widespread. Their crude modelling by hand with pinched features appear to have been used for some specific purpose. They are unlikely to be of an artistic type which can be treasured, but perhaps meant as votive offerings.

Figurines of this type are well-known at a number of sites revealed from Deccan and Central India and far-away sites of the Ganga Valley, Bhokardan[11], Brahmapuri[12], Kondapur[13], Nevasa[14], Paithan[15], Peddabankur[16], Ter[17], Tripuri[18], Yeleswaram[19], have yielded them in numbers and possessing more or less similar anatomical features. Peddabankur has yielded them with distinct features and varieties, some of them possess fan-shaped head-dress. At Yeleswaram they were headless with most of them having holes at neck perhaps to mortise them to the torses. Specimens at Tripuri are similar to those reported in Kuṣāṇa levels from Ganga Valley. Others from Deccan reportee, mostly in datable Sātavāhana levels. This type also occurs along with many sophisticated types prepared by single and double moulds and modelled varieties.

Simultaneously sites in Ganga Valley have also revealed them in large numbers. Foremost among them include Ahichchhatra[20], Atranjikhera[21], Hastinapura[22], Kausambi[23] (Fig. 18, No. 4) and Mathura[24], Rairh[25] (Fig. 18, No. 5-6) in Rajasthan has also yielded them. In these, places they continue to occur upto the third century A.D. Some of them are more realistic and possess additional features which are elaborations of an already known type. They are labelled as crude 'Mother Goddess' figurines.

Very few objects in terracotta are known except this type in Gujarat which can be useful for artistic study. Nagara[26] has yielded a few terracottas, but are difficult to identify.

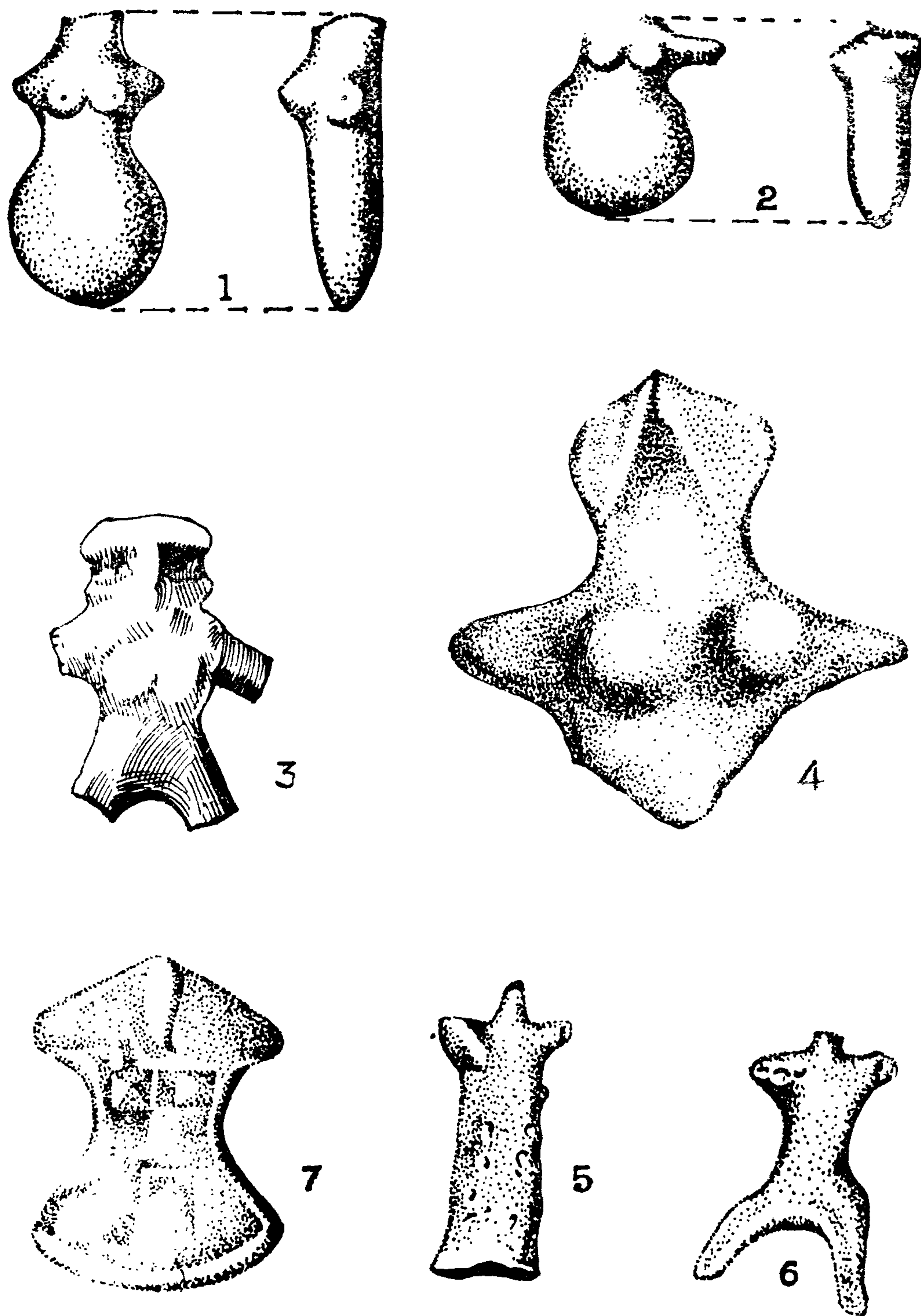
There is a pause in the terracotta art during the time span of the first century B.C. and first century A.D. in Gujarat which is yet to be cleared. On the contrary, ceramics, other useful arts and other aspects of material evidence, use of bricks for building purposes, art in stone evidently indicate prosperous settlements in South and Central Gujarat[27]. All these certainly indicate a high sense of art-appreciation, but enough evidence in clay-modelling is not forth-coming.

The next efflorescense in terracotta art begins evolving sometime during the early part of the second century A.D. at select centres of art activity. Diverse artistic trends mingle to produce figurines with features which are quite distinct to this portion of Western India. This spurt of art-activity continues almost upto the middle of the fifth century A.D.

An aspect of the art development of this period is stressed. A number of new themes are observed involving both religious and secular forms. Some of them are new to this part of the country, while some others are evolved from out of the existing models elsewhere. So far as the religious themes are concerned both the Hindu and Buddhist elements are represented, which have not been experimented in clay medium previously. Many aspects of early iconic features of Hindu deities can be traced out to this period.

The religious themes represented include portrait figures of deities of *Śiva*, *Pārvatī*, *Viṣṇu*, *Mahiṣāsuramardinī*, *Gaṇeśā*, *Naigameśa* and so on; figures of *Dhyāni Buddha* and *Bodhisattva* are among others in this type. Male figures in varying postures typical with anatomical features, female figurines standing in various poses, some of them, nude or scantily robed, Mother and child figures supposed to represent *Ankhadatri*, plaques, identified as *Lajjāgaurī* or *'nude goddesses'* emphasising fertility aspects of folkcult are some other types. A few of them represent new types to Gujarat. Representations of typical portions of royal personages clay, bullae with portrait heads of *Yakṣa*, in addition, folk deities are also new to the clay modelling of this period.

All these developments in clay medium indicate a popular means of either worship or used as *object d'art* decorating the households of the *nāgarakas* of the towns and villages. They could not evolve almost in a vaccum as this was a period during which Gujarat was ruled by the Kṣatrapas for two centuries or more. There are reasons to believe that Kṣatrapas were great patrons of art as the various



NOT TO SCALE

Fig. 18. Mother Goddess figurines—No. 1-2 from Timbarva, No. 3 from Nagara and No. 4 from Kausambi.
Male figurines—No. 5 and 6 from Rairh and No. 7 from Dhatwa.

objects found testify. Especially the coinage of the dynasty set a model as revealed by the Kings' bust and other symbols cast on them.

The important sites which have yielded terracottas include Amreli, Somnath and Junagadh (Uparkot). Some of them are also reported from Nagara, Vadnagar, etc.

Out of all the sites two of them were major centres of art activity viz., Amreli and Junagadh (Uparkot) which have yielded in varieties and types datable to the Kṣatrapa times. Amreli[28] has been subject to large scale excavations for quite sometime and later systematic and scientific work was done there by corroborating the cultural evidence of terracottas and placing them in proper chronological perspective. Evidence from Uparkot consist of terracottas from clearance of Buddhist cave which reveal the facts of Kṣatrapa art. These from Nagara and Vadnagar support the available evidence. The terracottas from Somanth[29] have not been published except the statement, "finely moulded terracotta human and animal figurines were found" datable to the second and third century A.D.

In general the terracotta plaques were prepared from single moulds possessing a flat back. The details were made when clay was in leather-hard stage and no applied decorations were traced. The figurines were found in high relief possessing features having balanced forms flowing contours with emphasis to details. The plaques are simple and handy enough to be used in domestic or private worship or utilised as sophisticated objects decorating the house-walls. The characteristic art of Kṣatrapas closely resemble the Mathura school of modelling except for the difference of the posture and gait as well as depicting the costumes which are distinct to the art of Western India. The major details represented in terracotta include *Umā-Maheśvara*, seated on the *nandī* and *Naigameśa* are important as emphasising their occurrence for the first time in clay modelling during Kṣatrapa times.

The plaque *Umā-Maheśvara* from Amreli[30] (Pl. XXV a, 8) with two hands and *nandī* in front is made in low relief with *nandī* seated almost horizontal to the deities. Similar simple plaques in clay are quite rare except for a 'realistic' portraiture in terracotta datable to the Kuṣāṇa period reported from Bhita[31] and Rangmahal.[32] Here the theme is elaborate with more decorative details such as coiffeure and ornaments and in addition *Pārvatī* has a lion-mount. Compared to this the Amreli figure is quite simple and represent a early form of the iconic composition in clay modelling.

The figure of Naigameśa[33] is yet another theme represented quite early in terracotta. It is the only figure which has been modelled in the round at Amreli. She is depicted with the typical goat-head, dangling split ears, huge breasts and slit mouth. She is supposed to represent the presiding deity of child birth. This theme is quite often represented and seems to be popular as revealed by its occurrence at a number of places. The features of the face and the body are almost the same wherever they have been reported. The best of them are known from sites in Ganga Valley such as at Ahichchhatra,[34] Bhita,[35] Kausambi,[36] Kumrahar,[37] Mathura,[38] Vaisali[39] and so on. Most of them are revealed from Kuṣāṇa period and some of them are known upto the Gupta period (*c*. A.D. 150-500). The popularity of its fertility aspect reveal its affiliation to some early folk cults that had underlying base to a common cultural stream prevailing at so many places could not be ruled out. This is the only reason that can justify its occurrence at many centres of art-activity or at best carried as cultural entities to places beyond.

Another terracotta at Amreli[40] (Pl. XXV a, 6) represents a deity possessing four arms. She holds *vajra*, *khaḍga*, while the others are not clear. She is possibly a goddess but yet defies identification.

In fact contemporary plaques carved in schist stone in small sizes as those prepared in clay, were also found at Amreli representing *Viṣṇu*[41] (Pl. XXV a, 3-5), *Mahiṣāsuramardinī* (Pl. XXV a, 7) etc. This otherwise indicates that they were also modelled in clay of which evidence is yet to be reported.

A small figure of *Gaṇeśa*[42] (Pl. XXV a, 10) in terracotta with trunk turned to left is made from mould and is of grey colour. It is so small that it could be used as a pendant also.

Royal personages and noblemen were also represented simulating those reported from Ganga Valley. At Amreli two of them were typical examples (Pl. XXV b, 9; XXVI a, 4). One[43] is a standing male figure wearing a long skirt, the folds of which are seen in between the legs. The ends of the upper scar and falls on the left side in several folds. The majestic poise and the firm stance of the figure (only the lower extant) almost resembles the stone figure of Kaṇiṣka at Mathura. The dress consisting of lengthy scarf and skirt—

all typical of the Kuṣāṇa costume. Similar is another figure[44] of a male standing erect with left hand parallel to body. He wears a long skirt similar to the above. one of the folds is visible. Both of them are made in mould in grey colour possibly they represent personification of the Kṣatrapa kings or the nobleman of the times.

Royal bust typical of portraits resembling Kṣatrapa kings have also been reported of which Uparkot has yielded a few (Pl. XXVI b, 1-3). One of them[45] is a royal bust (broken below) but both the hands are also lost. It portrays a royal figure with a skull cap and the curls of hair dressed to back. The portrait with bold features are quite vivid and realistic. One of the terracottas found at Khapra-Kodia caves[46] (Junagadh) is quite similar to the statue of Kaniṣka from Mathura or the Scythian warrior from Nagarjunakonda.

Another[47] depicting a *Kṣatrapa* ruler has also been found at Uparkot (Pl. XXVI c). It portrays a crowned (royal) head decorated with a necklace in beaded design. It has been made from mould with a flat back and possibly had a perforated top, presently lost. It is indeed a rare find, since royal busts are seldom found represented, except in coins of the times and its availability in clay medium suggests their use in pendants also.

It has been shown elsewhere[48] that possibly for the first time, royal busts are made from clay moulds for use as bullae since predominantly the *aurei* and *denarii* of Roman emperors were found in clay bullae. This has been found mostly in Sātavāhana sites in central and south east India and the Deccan.

A number of male and female figurines were found and in characteristic posture which is typical to this part of Western India. These represent figurines mostly standing with right hand suspended at ease parallel to the body and the left in *akimbo*, with slightly reclining gait almost in *dvibaṅga.* They are scantly dressed in semi-nude fashion, wearing simple ornaments in neck, arms and legs. Some have *Oḍhnī* over head.

Another group of figurines mostly male are depicted in sitting posture, some almost squatting with both hands upraised touching shoulders. The right hand holds some object which could be fruit. They are shown with lower part nude, but wears head-dress with some sort of decoration.

The first group is found in large numbers at Amreli[49] (Pl. XXVI a, 1-3; XXVII a, 4), while a few of them are also known from Uparkot[50] and Nagara.[51] A different version of the portraiture representing a standing male figure is known from Uparkot.[52] The figure standing fully dressed with lower garment, a thick fold of which falls in between legs. He has right hand held in *akimbo* and left parallel to body which is the reverse as found in other figurines. He has a head-dress securely tied in tiers ending in cone. In some respects, it is a best specimen of the natural depiction produced by the *Kṣatrapa* artists (Pl. XXVII b). The posture and gait are well-proportioned and the anatomical modelling of the natural ease add grace to an otherwise almost flattened surface, though made from moulds. This type is quite similar in respect of the balanced pose and style to the type of *yakṣīs* carrying flowers, or fruits, or water-pots, carved in Mathura sculptures[53] of the Kuṣāṇa times or even earlier. Of the same type are also a few figurines of terracotta known in Ganga valley sites such as at Ahichchhatra,[54] Mathura,[55] Bhita[56] and so on.

The second type is quite new and mostly confined to Gujarat. It is reported so far from Amreli[57] and Junagadh[58] (Pl. XXVI 2, 3; XXVII a, 1, 2, 5). It could be a form of *Yakṣa* type and recalls comparison to the famous Kuṣāṇa nude *Yakṣas* reported at a number of Ganga Valley sites of which the best examples come from Ahichchhatra[59] and Mathura.[60] Another type from Amreli[61] which has a datable value is the jar handles of Red Polished Ware in the shape of nude female figurines. The curve of the handles is naturally shaped with suspended hands, prominent breasts and ornamented with necklaces and armlets and girdles (Pl. XXVIII b, 7-9). It is known in Kuṣāṇa and Gupta levels reported from Rairh,[62] Sambhar,[63] and other places in north and north-west India. Agrawala[64] traces its origin to the Western world by way of trade contacts.

One more new type at Amreli[65] (Pl. XXV b, 1) is a human (female and male) figure seated in a pensive mood, resting chin on arms clasped over right knee raised in V-shape. The atmosphere indicates a calm poise and serenity and the very pose itself is realistic and charming. It is one of the rare scenes depicted

in clay modelling and is rather unique. Slightly different in attitude is a figure from Nagara,[66] with the head broken. Both are made from single moulds. Similar figures are not found elsewhere and the type is typical to Western India.

Figural portraits of heads mostly female were found in large numbers possessing plump cheeks, round chin, thick lips with simple head-dress or decorated with crest jewels are almost typical finds reported from Amreli[67] (Pl. XXVb 5, 6), Nagara,[68] Shamalaji,[69] Vadnagar,[70] etc. Some of them could be possibly full figurines, but unfortunately broken. Specimens from Nagara and Shamalaji are decorated with coiffeure possessing bi-forked head dress, with locks of hair combed to back. These are typical to a number of similar figurines reported from Ahichchhatra,[71] Kausambi,[72] Mathura,[73] etc.

Slightly different are a number of female figurines preserved to bust with elaborate coiffeure, ornaments and possessing elegant features. They were prepared from moulds with features so distinct that they indicate a high standard of modelling. The coiffeur is arranged in spiral locks or in trefoil fashion and has the effect of spread-wings at back of head. In most of them, they hold fruits or flowers at raised up right hand in typical style known mostly from Amreli[74] (Pl. XXVIII b, 4; XVIII a, 6-8). Coiffeure and other decorative features recall similar figurines reported in Ganga Valley at Ahichchhatra[75] and Mathura.[76] Both the types occurs in sites of North India datable to the second and third Century A.D.

Mother and child motif is another theme that is represented at Amreli[77] (Pl. XXVIII a, 1-4). The plaques were taken from shallow moulds in which the child is held to the left of the Mother. This is a popular theme reported from Kuṣāṇa levels and later at many Ganga Valley sites and Central and South-east India, especially the best of them come from Ahichchhatra[78] and Kausambi,[79] Maheshwar,[80] Prakash,[81] Yeleswaram,[82] which have yielded them datable to the second century A.D. and later.

Apart from these, representations of *Bodhisattvas* have also been identified at Amreli[83] (Pl. XXV a, 1-2; XXV b, 7). One of them is wearing a long skirt, standing erect, while the other has a *yajñopavīta* having hands on waist in *akimbo*. The other figure has been identified as *Dhyāni Buddha*[84] (Pl. XXV b, 4) with half closed eyes indicating a serene face. It has features which seems to have been adopted from similar stone sculptures at Mathura.[85] All the terracottas have been made from moulds.

Side by side with these variety of terracottas which does represent aspects of a common tradition with regional pecularities, the local folk traditions were also found reflected in terracottas. One such is the prevalence of 'Mother-Goddess' cult,[86] the evidence of which is reported from South Gujarat and Saurāṣṭra. She is called *Lajjā-Gaurī* or "Shameless woman". These are small terracotta plaques representing the Goddess seated on the ground or spread-out lotus, legs stretched out so as to display pudenda which is marked or deeply incised. The pose of arms, sometimes in "attitude of prayer" or the hands raised above, over knee holding flower, generally a lotus in both hands. The upper part of the goddess is shown as a petalled flower or in the form of a *stūpa* or female face. In most of them, some figurines on the sides are also depicted such as *Nandī*, *Liṅga*, *Gaṇeśa*, etc., thereby associating the Goddess to *Śaivite* worship.

These are mostly found carved in stone, but are also made in terracotta. One such comes from Kanad[87] (Pl. XXVIII c), a village situated near the famous port-town of Variavi in Olpad Taluka, Surat District. This figure has been cast from mould with a flat back. The goddess with a 'lotus' head seated on spread-out lotus depicted with fully developed breasts and proportionate body. She holds a flower in her outstretched hands; to the right of the Goddess is a standing female figure holding a vessel perhaps carrying offerings to the goddess.

This type of Mother-goddess[88] figurines have been reported at other places of South Gujarat such as at Kavi, a small port town District Broach, as well as Variavi and Amreli, but all of them are carved in stone, possessing features similar to Kanad specimen. The importance of the Kanad Mother goddess has been emphasised elsewhere.[89] It is mere skin in features to those reported in terracotta from a number of Sātavāhana sites[90] such as Nagarjunakonda, Nevasa, Ter, Vadgaon (District Satara) datable to the first and second century A.D. Other plaques from South Gujarat and Amreli are all

carved in stone with features which are later than the Kanad terracotta and belong to a distinct variety. However, an interesting aspect is the impact of various cultural influence from one region and the other of which the evidence is testified by this type which has and underlying folk theme that dominated the cultural substratum, alongwith other new development in art forms.

Apart from the evidence of terracotta modelling revealed from Amreli, which has yielded a continuous sequence for varieties of art prevailing during the second and fifth century A.D., no other site has yielded more to add further in respect either of new types or other trends in art-forms.

The only other site which has yielded evidence as an important centre of art-activity, catering exclusively for religious purposes comes from Devnimori.[91] It was a centre of Buddhist art,[92] wherein developed a huge monastic establishment with two *vihāras*, a large *śarīra stūpa*, four *Uddesa stūpas*, apsidal temple and a protective wall. The settlement starts by about the early fourth century A.D., and prospered for three or four centuries before it was abandoned. Nearby was situated Shamalaji[93] a flourishing town that catered to needs of the buildings of the *stūpa*, both artists as well as raw material.[94]

The entire structures were built of bricks and mud mortar. Carved bricks were used for decorative purposes. Decorations were geometric and floral made in rectangular and square bricks. Rectangular bricks with acanthus, laurel leaf or composite types represented mostly in oval mouldings.[95] Square bricks were made from moulds with a number of figures representing *Buddha*, grotesque face, animal, floral compositions, geometric designs and conch compositions.[96] Other decorative pieces consisted of arches, capitals of pilasters, dentils, brackets and so on.[97]

The main figural compositions of the entire complex consist of the images of *Buddha* which are considered" to be "the most eloquent specimens of a balanced blending of art and craftsmanship and is merited as the highest achievement of artistic creation".

They were prepared by 'piece mould' technique. Various parts of the body such as head, torso, leg, hands were modelled separately and then assembled together. All of them are seated in *padmāsana* and in *Dhyānamudrā*. The images were executed in alto-relievo featuring in three-dimensional reliefs.[99] The whole body is draped in *saṅghāti*, only face, part of chest, neck, hands were left bare.

What is in fact notable is the entire building materials and art decorations, *Buddha* figures were all made from the clay of Meshvo as could be visualised by brick-bats with quartzite pebbles and by the wastage of manufacture, which were dumped in the *stūpa* as they were made for religious purpose.[100]

The terracotta art of Devnimori presents some interesting problems for the study of Buddhist Art of Western India. In fact there is limited scope exist to compare the various aspects of the terracotta art since material is quite scanty Devnimori art developed almost in isolation in Western India occasionally with cultural influences drawn from north-western and north India.[101] In respect of decorative motifs acanthus, laurel and olive could be traced to Punjab school. Western influence can be seen in medallions, grotesque faces, etc

Figures of *Buddha*, the erect stance, the face and body contours, the serene, but suave countenance of the concept of the image is much more closer to the Kuṣāna art of North India even though, these figures were locally made. Except the hair style which has some affinity with the Punjab tradition

The brief outline of the major aspects of the development of clay modelling and plastic art of Early Historic Gujarat, attempted here, seems to be a disconnected account possibly defying to formulate certain salient features of the terracotta art in its formative stages. An obvious fact is to be emphasized viz., the lack of sufficient material to study, which is due to paucity of excavated evidence. Moreover there are very few sites excavated which have revealed sufficient material and whatever conclusions drawn are likely to be tentative in nature. However, this aspect is mitigated to a certain extent by the fact that these sites were familiar centres of cultural activity (such as Junagadh and Amreli) during the Early Historic period and the objects are stratigraphically documented, hence an observations made are likely to be more factual in nature.

A question of major relevance is in respect of the prevalence of plastic art earlier to early Historic times. Saurāṣṭra, Kutch and South Gujarat were all flourishing centres with proto-historic settlements and the plastic art of clay modelling was of a high order prevailing during the latter part of the second millenia B.C. But the available evidence indicate there is possibly no comparison can be made for any continuity in later times, in respect of clay art or whether there was any devolution in respect of art-traditions in the succeeding cultures. At least present evidence does not seem to support any comparison between the chalcolithic and Early Historic art since they form independent entities separated by more than a millenia.

Broadly speaking in the entire range of the plastic art of about six centuries of the historic period in Gujarat, the terracottas found can be distinguished into two major types in Chronological parlance.

(*a*) Terracottas belonging to the pre-Kṣatrapa times and

(*b*) Terracottas assignable to the Kṣatrapa period.

Though it is a vague definition to separate plastic art in terms of political cognizance, the artistic features of the second group can be better defined in contrast to the first group.

It is to be remarked that the earliest evidence in clay modelling does not go earlier to the second century B.C., even though a number of settlements are already existing much earlier during the Early Historic Period. Some of the settlements in Saurāṣtra and South Gujarat can go back to the third and fourth century and even earlier.

The early Historic terracottas assignable to the 'Pre-Kṣatrapa' times though much less, however, give an idea of the existence of clay modelling which seems to be widespread and bespeak of a tradition that can go earlier. The typical 'Mother Goddess' figurines reported from Gujarat sites indicate the theme to be of a popular nature. Whatever be its purpose, it affords a clue as to the clay art being well-known and its uniformity clothe it with a meaning and idea prevailing during pre-Christian times. It is moreover an indication of a cultural continuity as such an early type of its prevalence has been traced in many north-Indian sites as well as in Central India, Konkan and South-East coast. Some of them occur almost from the levels of the third century B.C. and its availability in Western India in levels of the second and First Century B.C. indicate a cultural contact. An underlying folk theme of cultic value existing with influence from North India and Deccan as well as South-East Coast could not be ruled out. Much could not be gain-said except that such piece of evidence do connect the early contacts of religious and cultural nature between places that are slowly emerging as settlements and to dominate as important centres of commercial and cultural activity in historical times.

Evidence of any other type of plastic modelling that can be distinguished with some idea and a purpose is not found during the pre-Kṣatrapa times.

The general artistic development in terracotta from the second century A.D. upto the latter part of the fifth century A.D. marks an advance both in technique and modelling with certain individual characteristics that need to be explained. New art forms emerge specially focussing on the production of religious types, both Hindu and Buddhist. Many iconic details are represented denoting a meaning and a purpose. This could not be possible without a corresponding development in the spread and diffusion of religious ideas and literature. In addition the secular art-representing male and female figurines in various postures, single or together also develop on similar lines. Some of them are

distinguishable as those typical to Western India. A number of types with form and features already prevailing such as in Rajasthan and Ganga Valley were also found in Gujarat. They were presumably modelled locally and only the idea was emulated upon.

All these features and forms some new, others borrowed of the development in clay modelling for about three centuries or so could not be possible unless there were times of peace and prosperity. It was definitely a period of consolidation and long rule of the Kṣatrapas who were responsible for the flourishing development of artistic activity in Western India. Some characteristics of the plastic art distinguish them from those known earlier. The modelling of the figure is quite simple, without much decoration. No applied or stamped details were found. They were made by single mould with flat back or by moulding in pieces and then joined together. The simple modelling with care to details has a grace of its own that is typical to the Kṣatrapa art. The religious themes of the deities indicate the gradual development of Hinduism when much iconic stipulations are yet to condition the plastic modelling. *Buddha* and *Bodhisattva* figures reveal the prevalence of Buddhism in Gujarat under Kṣatrapa rule. Representations of portrait-busts of royal heads in plaque and in clay-bullae is quite a new innovation found during this period. *Yakṣas* were also represented in this type. Another popular theme specific to the Kṣatrapas, is representation of folk deities prepared as small plaques from moulds for house-hold shrines called *Lajjāgaurī* or shameless woman—a form of fertility cult—later respected and spread to many art centres in Deccan and South India. This theme is known to have its early origin and spread in Western India. Its antiquity is traced to Western source, but during the Kṣatrapa rule it merges in the plastic modelling of the times and represented as a Mother Goddess in *Śakti* form.

Among secular depiction, mention can be made of figurines in sitting poses and in akimbo which are quite typical to Kṣatrapa art that can be easily distinguished.

Simultaneously the plastic modelling was influenced by many new art forms from other regions. The types representing Mother and child, *Yakṣa* figures, deities like *Śiva* and *Naigameśa*, *Buddha* and *Bodhisattvas* are all for the first time known in Western India during the Kṣatrapa times. These iconic characteristics are well-known earlier in North-West and East Rajasthan and Ganga Valley. The phenomenal development of the plastic art in Gujarat during the third and fourth century A.D. speak of this wider cultural influence from many regions of India. Kṣatrapa artists used these themes in their plastic modelling and produced art-forms of a typical nature which is quite plain devoid of decorations and has a Spartan simplicity of its own that lends grace to the figures.

In fact the Kṣatrapa art is seen in its evolved stage of development in the plastic art at Devnimori, even though it was an art centre mainly devoted to religious purposes. The secular art which could possibly have flourished but positive evidence is not forthcoming. The art content is Buddhist in character but the features, modelling technique and the decorations especially, of the *Buddha* figures, the decorated moulded bricks etc. have the dominating continuity of the Kṣatrapa art tradition for which the artists were drawn locally from nearby contemporary township of Shamalaji. The *Buddha* figures prepared by piece moulding is peculiar to the artistic tradition of the Kṣatrapas, but the concept of the image and the existing form of the *stūpa* and the allied complex formulated and developed from the known traditions, but the individualistic traits is much more akin to the plastic modelling known in existing centres such as at Amreli, Junagadh, Vadnagar, etc.

Similar development of like nature in contemporary settlements on South-East and North-West Rajasthan help to know the existence of brick architecture as well brick decorative tradition both for religious and domestic purposes. Many of the settlements go back to the third century B.C. and were flourishing upto the fourth-fifth century A.D. They were not only centres of political significance but also were important religious centres, as well as of art and industry. Some of the ancient settlements that have revealed evidences include Bairat (Virāṭanagara), Nagar (Karkoṭaka or Mālava), Nagari (Mādhyamika), Rairh, Sambhar (Sakambhari), etc. Most of them are situated east of the Aravallis, connected by caravan routes between one and the other.

Out of them, Nagari, 12 kms north of Chitorgarh is nearer to Devnimori, which has significant developments as a religious centre. Nagari has been identified as Mādhyamika country of the *Śibi*

Janapada who settled in South-East Rajasthan after their migration from Punjab. What is relevent is that here developed a rich religious centre devoted to *Saṁkarṣaṇa* and *Vāsudeva*, the earliest shrine was built as early as the third century B.C. For about six centuries the place thrived as an important centre devoted to *Śaiva* and *Vaiṣṇava* pantheons. The entire complex was built in brick, including the temples and a repertoire of moulded bricks were utilised for decorating the portions of the shrines. The moulded bricks had decorations of three types viz. busts of human figures, birds such as *haṁasa*, pigeon, etc., four and six leaved lotus medallions, scrolls, volutes and other geometric devices. All these are decorations of a high order and can be called as "Mādhyamika art" of the region. Moreover, a number of pillars, *toraṇas*, arches, sculptures and other portions of the shrines reveal that art in stone had a corresponding development at Nagari.

An aspect which is quite relevent and a fact difficult to explain is the use of bricks for building purposes specially for shrines when the natural raw material as stone is easily available, whereas the bricks are to be manufactured afresh. This indicates that there already evolved an artistic tradition of temple building in brick elsewhere which was continued even where there is scarcity of good clay. In otherwords, it can only be explained by the fact that the tradition of brick architecture for temples and *stūpas* and encasing them with decorated and moulded bricks—as an art form was kept alive and erected at places where there is scarcity of raw-material.

The brick temples at Nagari was built during the time of the second and the fourth century A.D. This decorative art and plastic tradition is also used for non-religious purposes which was equally rich as the plastic art found reveal. It is enough to emphasise the countinuity of artistic traditions of clay-modelling and its diffusion to other places gradually. Another contemporary township is Nagar or Malavanagara (or Karkoṭanagara) District. Tonk, the ancient capital of Malavagana was also a flourishing centre of artistic activity, apart from its political significance. Its origin also goes back to *C.* the third century B.C. In addition, contemporary Bairat (ancient Virāṭanagara) has also yielded evidence of the use of decorated bricks for religious buildings. Rairh has yielded the best specimens of aristically modelled terracottas ranging from the first century B.C. to the third century A.D., revealing it as an important centre of terracotta art industry. The entire settlement was built in brick and was flourishing as an industrial centre all through.

Equally, on the West of Aravallies many settlements were found in North-West Rajasthan along the banks of Ghaggar on the ancient Sarasvati-Drishadvati, datable to the late Kuṣāṇa times of the second and the fourth century A.D. They were most popularly designated by the type site of Rang Mahal which has been excavated on a large scale. The art of plastic clay modelling and the use of decorated and moulded bricks in these settlements are partly contemporary to Devnimori, even though, chronologically they are earlier by a century or so. The whole of Bikaner was spread over with the settlements during Late Kuṣāṇa times characterised by small habitations and larger villages. Notable mention can be made of large number of terracottas revealed from these settlements, consisting of the plaques of deities of *Śiva-Pārvatī*, various exploits of *Kṛṣṇa*, *Viṣṇu*, friezes of human and animal figures, etc. which give an idea of the rich art-tradition during the first few centuries of the Christian era.

This is the contemporary chronological background existing in Rajasthan during the period in which the *stūpa* of Devnimori and allied complexes rose and flourished for about three to four centuries. It is quite relevent to postulate the influential tradition of brick architecture, use of decorated and moulded bricks in shrines by the Hindu or Buddhist though conceptualised in Ganga Valley it was also very much used in contemporary settlements in south-east Rajasthan, east of Aravallis, on a phenomenal scale, in almost all ancient towns. Devnimori situated on the fringe of these settlements could have been influenced by the artistic traditions existing in the neighbourhood. What is more relevent is that though the conception and form of the *Stūpa* and the image seem to be formulated on the existing traditions from the region of North-east and West Rajasthan and Ganga Valley, all other aspects of the art of Devnimori consist of the Kṣatrapa art, the main ingredients of which was evolved locally and conceptualised on a grand scale at this religious centre.

Apart from the above circumstantial influences further possibilities have to be kept open by future discoveries for positive inferences in respect of the plastic art of terracottas in Early Historic Gujarat.

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XIX

Ujjayini and Kalidasa : Analysis of the Archaeological Data

N.R. Banerjee

INTRODUCTION

The city of Ujjayinī (Ujjain) has offered a name to conjure with, and has received considerable attention from the historian, man of letters and archaeologist alike. For the common man too it holds considerable charm, mystery and attraction through the long-established tradition of the glorious reign and fabulous achievements of king Vikramāditya of old. The great poet Kālidāsa too has for long got interwoven into the texture of legend and history and one has grown into the unquestioned habit of associating the two together. Every one, therfore, was in rights to expect to hear of tangible evidences of Vikramāditya and Kālidāsa of hoary and inalienable tradition being found by the archaeologists.

The tradition of Vikramāditya[1] owes itself mainly to the Jaina works : (*i*) Merutunga's *Therāvalī*, (*ii*) *Kālakāchārya Kathānaka*, (*iii*) Other *Gāthās*, besides (*iv*) *Gāthā Saptaśatī* of Hāla, a Sātavāhana king, (*v*) the Bṛhatkathā of Guṇādhya, who was a contemporary of Hāla, but the tradition of which was recorded much later in (*vi*) the *Bṛhatkathāmañjarī* (Kashmeri) of Kṣemendra and (*vii*) *Kathāsaritsāgara* of Somadeva, both of the 11th centry A.D., (*viii*) *Vetāla Pañchaviṁśati*, (*ix*) *Siṁhāsana-dvātriṁśaka*, (*x*) *Śuka Saptaśatī*, (*xi*) *Vāyu Purāṇa*, (*xii*) *Brahmāṇḍa Purāṇa*, (*xiii*) *Bhaviṣya Purāṇa* and the (*xiv*) *Kumārika Khaṇḍa* of *Skanda Purāṇa*.

According to the *Therāvalī*, the Gardabhilla dynasty came to power in Avantī (Ujjain), after the Śuṅgas. It shows Gardabhilla as the founder of a new dynasty and ruler for 13 years, followed by an interregnum of 4 years interlude under the Śakas, until the fortunes of the family were restored by Gardabhilla's son and successor, Vikramāditya. Vikramāditya is stated to have ruled for 60 years, and was followed by four successors who accounted for 75 years, thus making up a total duration of 152 years for the house of Gardabhilla. Vikramāditya is also credited with the founding of the Vikrama era beginning in 57 B.C.

LITERARY TRADITION

The *Kālakāchārya Kathānaka* presents an account of the violation of the modesty of Sarasvatī, a nun and sister of Kālakāchārya, a Jaina monk, by king Gardabhilla,[2] and the latter's revenge, for the insult, upon the king through the Śakas, helped by him to make a conquest of the country, resulting in the temporary eclipse of the dynasty.[3]

The other *Gāthās* state that 135 years after the accession of Vikramāditya the Śakas reconquered Ujjain and it works out to A.D. 78, counting from the initial year of the era, supposedly founded by Vikramāditya in 57 B.C. This explains and accounts for the founding of the two respective eras, namely, the Vikrama era in 57 B.C., and the Śaka era in A.D. 78.

The *Gāthā Saptaśatī* mentions the king Vikramāditya. An echo of this work is to be found in the much later work of *Harṣacharita* by Bāṇa, which refers to the writing of a *koṣa* (encyclopaedia) of kings

by a Sātavāhana, and that it refers also to the exploits of Kṛṣṇa and Rādhikā. The name Rādhikā occurs, however, for the first time in *Pañchatantra* of the fifth century A.D.

The *Bṛhatkathāmañjarī* speaks of the birth of Vikramāditya of Ujjain for the destruction of the *Mlechchhas*, and the *Kathāsaritsāgara* mentions a Vikramāditya of Pāṭaliputra.

Vetālapañchaviṁśatī, *Siṁhāsana-dvātriṁśaka* and *Śuka Saptaśatī* present colourful accounts of the exploits of Vikramāditya.

Vāyu Purāṇa and *Brahmāṇḍa Purāṇa* mention the Gardabhillas while the *Bhaviṣya Purāṇa* and *Skanda Purāṇa* indicate that king Vikramāditya ruled several thousand years after the founding of Kali era.

Apart from these older traditions there is an implied reference to the carrying away of an image of king Bikramjit (Vikramaditya) by Allaud-Din Khalji in 1305, showing the place of honour accorded to Vikramāditya. But there is neither any inscription nor any coin yet that can be attributed to Vikramāditya of Ujjain and the extensive excavations[4] under consideration have not improved the situation any better. Nor has any other part of the country produced an iota of tangible evidence beyond the legendary transmitted in tradition.

DISCUSSION

As to the attribution of the still-current Vikrama Saṁvat to Vikramāditya of legend and tradition[5] on the basis of the similarity of names and literary evidence, it may simply be pointed out that the era came to be known as such much later than the traditional date of the founding of the era, and the supposed connection between the two is, therefore, *ipso facto* contra-indicated, though persistent protagonists of the time-honoured theory are not wanting. Prof. Raj Bali Pandey has cited a parallel case of the Śaka era being so called for the first time in its 500th year.[6] It is to be observed that the earlier reckonings made in Kṛta and Mālava Gaṇa eras, respectively conform to the basis of reckoning of the Vikrama era in later times and can be held as one and the same, though current under divergent names at different times. In the reasoning of Pandey, therefore, the founder of the era can be none other than the legendary Vikramāditya himself. This is a fallacious argument and in its present form, or under available evidence, hardly carries conviction. The lack of any convincing answer to the question as to which King may later had adopted an earlier era and imparted his name to it, apart from the considerations of why he may have borrowed an existing era at all cannot be met with a equally chimerical answer by attributing the era to a king of whom there is no cognizable material evidence.

The matter is further complicated by the traditional clubbing of Kālidāsa with a king called Vikramāditya.[7] The primary source of this august association is the *Jyotirvidābharaṇa*, a work of the medieval period (11th Century A.D.). The relevant lines about the nine gems of the court of Vikramāditya read as follows :

"*Dhanvantarī—, Kṣapaṇaka, Amarasiṁha-Śaṅku Vetālabhaṭṭa—Ghaṭakarpara—Kālidāsāḥ Khāyato Varāhamihiro nṛpateḥ sabhāyāṁ ratnāṇi vai Vararuchirnava Vikramasya*"

Apart from being intrinsically anachronistic, the *śloka* itself is later in point of emergence than the colossal contemporaneity in antiquity to which it claims to relate.

The name of *Vikramorvaśīyam*[9] of one of the seven works of Kālidāsa has been interpreted to lend support to the association, and the Vikramāditya, who was Kālidāsa's patron, has been identified as Chandragupta II, Vikramāditya. The conception of *Kumārasaṁbhavaṁ* may accordingly have been inspired by the birth of the prince Kumāragupta. The performance of the horse sacrifice mentioned in *Mālavikāgnimitraṁ* may echo the horse sacrifice performed by Samudragupta. The conquests of Samudragupta may have inspired the exploits of Raghu in *Raghuvaṁśaṁ* (canto IV). It is also claimed on the basis of Jacobi's calulations that the astronomical data in Kālidāsa's works would not point to a date earlier than A.D. 350.[10]

It has been heard that Kālidāsa's *Raghuvaṁśaṁ* (canto IV, 68) mentions the Hūṇas, and locates them in Kashmir. Kālidāsa could have gained knowledge about the Hūṇas either after their first defeat by Skandagupta in A.D. 456, or shortly after their first emergence in the western world in the second century A.D.

It is also to be observed that the earliest epigraphical reference to Kālidāsa is in the Aihole inscription of the Chalukyan king Pulakeśin II, dated to A.D. 634.[11] Bāṇabhaṭṭa also mentions him in *Harṣacharita*. He could, therefore, be dated between the second century A.D. and the 7th century A.D., and as near to A.D. 350 as possibe, because it cannot be imagined that a great and successful poet and playwright like Kālidāsa, whose plays were no doubt staged in his own time, could remain unnoticed for long, and 300 years to reach the times of Pulakeśi or Bāṇa would be indeed an extreme limit. Presuming that he was contemporaneous with Chandragupta II, Vikramāditya it has to be conceded that he has to be associated with Pāṭaliputra, the capital of the Guptas, where Chandragupta dwelt and held court rather than Ujjain. That Ujjain and, for that matter, Malwa was included within the Gupta empire may perhaps be conceded, considering the fact that Chandragupta's (*Śakāri i.e.* enemy of the Śakas), conquest of the Śakas is supported by the literary evidence of *Devīchandraguptaṁ*. That he conquered Saurāṣṭra is indicated by the imitation of Śaka coin types of silver. That Eastern Malwa with Vidiśā as the gubernatorial or administrative seat was within the Gupta empire is established by the Udayagiri cave inscriptions of Chandragupta II himself. That Mandasor, about a 100 miles (162 kms) to the north of Ujjain, was the seat of a powerful vassal of the Guptas is indicated by the line of Jayavarman, and later by Yaśodharman who inflicted a defeat upon Mihirakula, the chief of the invading Hūṇas. There is no such evidence in respect of Ujjain, not even the thin evidence of the provenance of the prevalence of two well-established administrative or gubernatorial seats. It is also difficult to visualize a third in such close juxtaposition, which has none but conflicting literary or traditional evidence to support. The strongest claims to Chandragupta's connection with both Pāṭaliputra and Ujjayinī is, however, indicated by the later Canarese records describing him as *Pāṭalipurāvarādhīśvara* and *Ujjayinīpurāvarādhīśvara*.

It has to be admitted that Ujjain, was never the capital of the Imperial Guptas.[12] It could at best have been a guberanatorial seat. That Kālidāsa was able to shower extraordinary praise upon Ujjain or paint its beauties with masterly style cannot really be held as an argument of his close contact or intimacy with Ujjain to the extent of his being an inhabitant of the city. As a matter of fact, his observations and narrations[13] of any part of India, or any aspect of nature, be it a cloud, a swarm of birds, hills, rivers or cities, is accurate and intimate, being the result as it were of profound personal knowledge, the result of practised cultivation as a matter of habit. There would not, therefore, be any special claims of Ujjain upon Kālidāsa than any other part of India. At any rate it has not been proved that Kālidāsa actually belonged to Ujjain or that he spent a substantial part of his life there.

It is to be noted that in Raghuvaṁsaṁ, Kālidāsa introduced the King of Avantī (Ujjain) at the *svayaṁvara* of Indumatī in the following words.[14]

Avantinātho ayamudagrabāhuḥ, etc.

If Kālidāsa had indeed been the court poet of the king of Ujjain, he would surely have abstained, for reasons of decorum and properiety, from making a rather derogatory reference, even by a covert implication, to an ancient predecessor of the ruling sovereign, his alleged patron, howsoever distant in time or family connexion he might be. This is a contra-indication against Kālidāsa being at the court of Avantī for any length of time. It follows, therefore, that if he was a court poet of Chandragupta II, he could not have been at Ujjain.

Conversely, if he had been at Ujjain, he could not have been in the court of Chandragupta II, Vikramāditya, for the latter is never known or proved to have held court at Ujjain. Nor is any other contemporary Vikramāditya, also a patron of arts and letters, of the same date as Chandragupta II Vikramāditya.

The other alternative is to seek a Vikramāditya who ruled or is supposed to have ruled in Ujjain. For this purpose the fabulously meritorius figure of literary tradition, namely, Vikramāditya, son of Gardabhilla, and also the supposed founder of the Vikrama era suits ideally. This would, however, require that Kālidāsa should be dated correspondingly earlier and there are indeed scholars who would throw all their weight in favour of such a date.

The internal evidence of Kālidāsa's works provides us with the names of three other earlier poets, namely, Bhāsa, Saumila and Kaviputra. Of these only Bhāsa has been identified with the author of

the thirteen Trivandrum plays. He is usually dated to *circa* A.D. 300. But Kālidāsa is regarded by some scholars as anterior to Aśvaghoṣa, who is placed in the first or second century A.D. on the ground that there are some parallelisms between Aśvaghoṣa and Kālidāsa.[15] But Kālidāsa being decidedly the better poet could not possibly have condescended to borrow ideas or imagery from an earlier and undoubtedly inferior poet. This argument does not appear to be very logical or even practical. Suffice it to say, however, that the dispute about the date of Kālidāsa has not yet been settled, though the circumstances outlined above would lend to tilt the balance in favour of a later date rather than the earlier. Against this background it may be considered that the historicity of Vikramāditya of Ujjain has not been established beyond any reasonable measure of doubt. Kālidāsa's association or link with Ujjain is as yet entirely conjectural. The argument in favour of a link between the Kālidāsa and Vikramāditya is, therefore, thin.

At this stage, it may be made clear that no claim is being made by the author to offer any suggestions of finality to the problem in hand. The points raised here have been presented with an eye on objectivity without any pretension to over emphasis.

In this context it may be worthwhile to quote from the writings of S.N. Dasgupta and S.K. De, on the subject as follows:

"His date, and even approximate time, is at worst uncertain and at best conjectural for none of the theories is final and without further and more definite material no convincing conclusion is attainable. Let it suffice to say that since Kālidāsa mentioned as a poet of great reputation in the Aihole inscription of A.D. 634, and since, he probably knows Aśvaghoṣa's works and shows a much more developed form and sense of style (a position which, however, has not gone unchallanged) the limits of the time are broadly fixed between the second and sixth century A.D. Since his works reveal the author as a man of culture and urbanity, a leisured artist probably enjoying, as the legends say, royal patronage under a Vikramāditya, it is not unnatural to associate him with Chandragupta II (*circa* A.D. 380-413) who had the style of Vikramāditya, and whose times were those of prosperity and power. We neither know nor shall perhaps ever any of the brilliant conjectures is correct, but in the present state of our knowledge, it would not be altogether unjustifiable to place him roughly at A.D. 400."[16] Prof. A.B. Keith also held a similar view as stated above. According to him Kālidāsa "flourished under Chandragupta II of Ujjayinī, who ruled upto about A.D. 413 with the style of Vikramāditya".[17]

Though Kālidāsa has described Ujjain as '*Viśālā*' or '*Śriviśāla*' the excavations have not yielded any structure of magnitude (*Saudha*) that would justify the appelations, unless the difference between expectation and reality is to be attributed to a difference in the modern outlook on bigness or to the time-honoured epigram—*kāyāvāḥ niraṁhuśāḥ*,[18] *i.e.*, the poets enjoy licence to let their imagination run riot.

It is indeed true that the excavations have yielded evidence of the manufacture of beads of agate, chalcedony and the like[19] which ultimately led to the display of the finished goods in shops, and objects of great charm on the streets of Ujjain. The reputation of such displays may have provoked the poet to compose the following verse[20] in the *Pūrvamegha* of *Meghadūtaṁ*.

1. "*Harāmstārāṁ taralaguṭikān koṭiśaḥ śaṅkhaśuktiḥ*
2. *Śaspaśyāmān marakatamaṇin Unmayukhaprarohān*
3. *dṛṣṭvā yasyām vipaṇirachitān vidrumāṇāṁ chabhaṅgān*
4. *Saṁlakṣyante salilanidhes toyamātrāvaśeshaḥ.*

The *śloka* refers to the enormous riches of ancient Ujjain in respect of precious and semiprecious stones and other meterials. There is even a corroboration in the *Periplus of the Erythraean Sea* of the first century A.D. The bead industry of Ujjain in fact continued from little before 100 B.C. for several centuries of the Christian era to deserve a passing and indirect mention by Bāṇa in Harṣacharita. Argus-eyed Kālidāsa could either have observed the phenomenon personally, or heard of it otherwise to be able to describe it in such appealing terms.

But the passage in question has been held by Mallinātha as a later interpolation[21] and cannot, therefore, be cited in support of Kālidāsa's association with Ujjain.

In reality, defying the expectations, if not decrying them, archaeology has not yielded any tangible evidence as yet on the association of Kālidāsa with Ujjain or with Vikramāditya. Nevertheless, it may be stated, the present absence of the desired evidence would not prejudice the case of theorists so painfully built up over the years nor preclude the possibility of such finds in the future.

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1. The subject of the Vikramāditya tradition, including the assumed association with Kālidāsa and other gems of the court of Vikramāditya and the Vikrama era has been dealt with extensively by different scholars in the *Vikrama Volume*, Gwalior, 1948.
2. Seth, H.C , Historicity of Vikramāditya, *Vikrama Volume*, pp. 539-45. He thinks Gardabhilla of Ujjain is identical with Khāravela of the Hāthigumpha inscription, adding further complication to the already baff-line confusion on the subject.
3. Prof. Norman Brown has edited a text of the 14th century A.D. The accuracy of the history recorded therein relating to a time dating back to the first century B.C. can better be imagined than commented upon. See Banerjee, N.R., 'The excavations at Ujjain', *Indologen Tagung 1959*, p. 85.
4. Apart from the 13 trenches on Garh-Kālikā, one on Vaiśya Tekri, and extensive areas in Kumhār Tekri, near the Undasa lake in Ujjain, laid out by the Gwalior State, Department of Archaeology in 1938-39, 28 large and small trenches all over the mound of Garh-Kālikā, one on a mound outside the fortified area (Kachchā Samsān, Ujjain-17) and one trench near the Mahākāl temple (Ujjain 29) were opend by the author under the auspices of the Archaeological Survey of India between 1956 and 1965, virtually combing the area thoroughly. Nor is there any other mound comparable with it or recognizable as the real Ujjaiyinī of old, if Garh Kālikā is not acceptable to lovers of literature as the site of old Ujjayinī, yet at least three scholars of reputation and holding high position, in the field of education, specializing in language, literature and epigraphy and public life, respectively, have said to me that we may not have dug in the proper areas. Such a blind adherence to tradition would be impervious to objective archaeological observation. The unreasoned tenacity of tradition is easily comprehensible in this context.
5. Pandey, R.B., *Vikramāditya of Ujjayinī, Banaras*, 1951.
6. Pandey (*ibid*) has enumerated the inscriptions in the different eras, and it is to be observed that the earliest inscription which uses the Vikrama era by name in the Dhaulapur inscription of Chanda Mahāsena dated to 898 V.S., working out to A.D. 841. The problem has also been dealt with by H.N. Dvivedi in '*Vikrama Volume*, pp. 115-136. He has also appended a list of inscriptions in the differently named eras.
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8. *Jyotirvidābharaṇa*, chapter 22, *śloka* 10. As Raychaudhuri points out in *Political History of Ancient India*, 2nd edition, 1953, p. 556, foot note 2, the *Kāvyamīmāṁsā* too mentions Kālidāsa, Amara and Bhāravi and others along with Chandragupta, apparently anachronistically.
9. See Keith, A.B , *The Sanskrit Drama*, London, 1924, pp. 143-147, for the arguments about the association of Kālidāsa with Chandragupta II.
10. Jacobi, in *Zeitschrift der Deutschen Morgenländische Geselschaft*, XXX, 30 ff., *Monatsbericht der Koeniglischen Preussischen Akademie der Wissenschaft*, 1873, pp. 554.
11. Ind Ant., VIII, pp. 239-40.
12. Law, B.C., in *Ujjayinī in Ancient India*, 1944, p. 24, says "The contemporary epigraphic evidence is so far unavailing as proof of Ujjayinī having been the proud capital of Chandragupta II, and his son, Kumāragupta I". Rachaudhuri, *op cit.* p. 556, expresses the view that Chandragupta made Ujjain a second residence or capital after the western conquests.
13. Banerjee, N R., 1959, *op. cit.*, p. 85; Mirashi, V.V., *Himālaya as described by Kālidāsa*, *Studies in Indology*, Vol. II, pp. 394 ff. To quote Mirashi, "Kālidāsa has drawn living penpictures of Indian landscape, mountain scenery and feminine beauty. His description of Himālaya is wonderfully picturesque. The way in which he describes the various cities and other geographical details shows that he had visited those places and had travelled extensively all over India".
14. *Raghuvaṁśaṁ*, V.
15. Nandargikar, G.R., *Raghuvaṁśaṁ* (Introduction); Chattopadhyaya, K.C., *Allahabad University studies*, II, p. 80; Sankar, K.G., *IHQ.*, I, pp. 312 ff. Dasgupta, S.N., and De, S.K., describe this view as based on the concession of "a retrogressive phase in literary evolution" in *A History of Sanskrit Literature*, Calcutta, 1962, p. 124.
16. Das Gupta, S.N., and De, S.K., *op. cit.*, Vol. I, pp. 124-25.
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19. Banerjee, N.R., 'The technique of the manufacture of stone beads in ancient Ujjain', *JASB.*, Vol. I, No. 2, 1959, pp. 189-96, pls. I-X.
20. *Meghadūtaṁ*, ed. by De, S.K., Sahitya Akademi, New Delhi, 1950.
21. See *Meghadūtaṁ*, ed. by De., S.K. Also See Banerjee, *op. cit.*, *Indologen Tagung 1959*, p. 54. The writer is aware of the existence of a strong view in favour not merely of the association of Kālidāsa, with Ujjayinī, but with the legendary Vikramāditya of a much earlier date as already indicated earlier. C. Sivaramamurthy holds fast to this view, which had inspired his fine book *Sculpture inspired by Kālidasa*, published as far back as 1942.

XX

Champaner : An Experiment in Mediaeval Archaeology

R.N. MEHTA

Champaner (22°29′ N 73°32′ E) is situated at a distance of about 50 Kilometers to the east of Baroda. This one time capital of Gujarat and Sahar Mukhrram was intensivey studied, because Sikander-bin Manjhu remarks "Blessed be Allah ! Was it this Champaner—now is the abode of tiger and lion ? Its buildings are ruined, its inhabitants have given their property to the winds of destruction, even its waters are poisoned, and its air such that deprives the human frame of its strength. Thorns grow where flowers blossomed and where gardens smiled there is jungle dense and frowning, and there is neither name nor trace of sandalwood trees. Of a truth the Koranic saying has here been realised : "Every thing on earth shall perish except the Face of thy glorious and gracious Lord".[1] This description of the chronicle is both factual and pathetic, and reminds one of the note in Bhagavadgītā" "*Kālosmi Lokakṣthyakṛtpravṛddho Lokān Samāhartumiha Pravṛttaḥ*" (XI 32 ab).

The description of the early 17th century A.D., when Champaner had become a Sarkar under the Baburi dynasty clearly indicates that large part of the habitation in the city had been deserted and it was ruined. A map prepared by the author of Mirat-i-Ahmedi also clearly indicates that in the 18th century the deserted town was already forgotten (Pl. XXIX a).

In our country unfortunately, by a tradition established in the 19th century a system of ascribing the first research from the time that the descriptions became available in the English language seems to be strong. This tradition is also scanty. The old gazeteer described parts of Champaner but its information was about the Ashlar fort built by Mehmud Begada, Machi area, and the road that moved from the ground level to the *kālikā mātā* temple. The work of Burgess and Cousens[2] was limited to the description of Sahar Ki Masjid, Mandir, inner fort line, and references to Kevada and Nagina Mosques. This work was the standard reference for subsequent papers and books. It was only in the middle of the fifties that Hermann Goetz[3] tried to give an art historical view of some of the monuments. He saw parts of the outer fort walls and connected them with Vaḍā Tālāv. This was the finest work that was available for the city. But, it did not cover the city plan. His understanding of Atak fort also did not stand scrutiny from the archaeological view point.

In Gujarati Pavagadh and goddess *Kālikā* are well known in the religious sphere. In the garba written in the praise of the goddess, the city of Champaner is traditionally described as built with four Markets on the lower part of the Hill.[4] Besides this tradition, the others preserved in the population that migrated from Champaner, indicate that it was a big city, but practically nothing was known about its dimensions, life conditions etc. The place is visited by the Hindus and Jains for *Tīrthayātrā*. These factors required analysis and study.

In Sanskrit literature however, a drama existed. Written in the 15th century A.D. by Gaṅgādhara, it commemorates the victory of Gaṅgādāsa over Muhammed II, the Gujarat Sultan in 1449 A.D. This text of Gaṅgādāsa Pratāp Vilāsa Nāṭak[5] has been published from the Oriental Institute, M.S. University of Baroda, Vadodara in the Gaekwad Oriental Series No. 156 in 1973.

This interesting drama describes in its Seventh Act, the city of Champaner drawn on a Map. The

description is graphic with good elements of geography and man made features. It, however, is mixed up with traditional narratives, so it requires careful reapprisal.

Besides these original sources and the publication of the inscriptions by Chagtai, there was very little information that was available from the Gujarat side. But under the orders of Akbar, the great ruler of Khandan-i-Timuria, much information was collected for compiling the History of his times, in Akbernamah. For this some writings of Jauhar Aftabchi, Gulbadan Banu Begam[7], and others exist. They provide some information of Talab-i-Imad ul-Mulk, Halol and such areas, as a part of the conflict of Humayun and the Gujarat Sultan Bhadurshah.[8] Sporadic references to Champaner continue, but they do not give precise information about the town.

Under these circumstances of written documents, the townscape of Champaner, its growth, planning, its suburbs and pleasure resorts were obliterated. It was not possible to know the patterns of houses and the socio-political structures reflected from the habitat. A few mosques were in isolation peeping out of the green forest. The history of this area also was confused, and even the place name could not be clearly analysed. These facts indicated that piecing the past of Champaner was essential for the proper understanding of the town and its life in different periods of its existence. The failure of written documents and traditions was glaring and hence the only method, that could be used was Archaeology.

The previous experience of work at Nagara[9], Cambay[10], Vadnagar[11], Dholka[12], Junagadh[13], Shamlaji[14] and other sites stood a good test while deciding the basis for work. The translations of Persian sources by Elliot and Dowson[15], Athahar Rizvi[16], Faridi[17], De and others were utilised. The Sanskrit, Gujarati and other oral sources were collected and studied before planning the field work. The Field investigations were planned keeping in view the aim of understanding the totality of archaeological phenomenon of Champaner area. To understand this totality interpretative explorations and record were organised in eight stages:

1. Preliminary reconnaissance,
2. Sketching the area.
3. Surveying and cartography,
4. Photographic record,
5. Interpretation of Field data,
6. Excavations for further study,
7. Correlation with literary, traditional and other data,
8. Final interpretation.

Preliminary reconnaissance

The first stage in the field programme consisted of two stages.

1. Identification of the character of mounds and lower areas, and
2. Understanding their functional character.

The identification of the mounds in the hilly terrain was aimed at isolating the natural from the manmade features. At Champaner, on the plains, the mosques in the jungle helped as the starting point. It was felt that even though they are in the forest today, their social function was meeting for the prayers to Allah, so the identification of the residential area of the faithful was first undertaken.

Keen eyes and long walks were essential for this activity. From the Nagina Masjid, walking through the thorny heavy jungle, the remains of the Faithful in the form of low mounds hiding walls, parts of door jambs, scattered building materials were observed for a distance of about half a kilometer. At this point the topographical features changed in to constituents. One of them was a comparatively low mound with walls of rubble and lime clearly visible at some points. Out side it was a low depression and fields of black clay that was described in an inscription of 1498 A.D. as *Kālī Kālān e Khetra i.e.*, the fields as black as goddess *Kālī.* This change was so remarkable that indicated a junction of the natural and the archaeological deposits.

The pursuit of the low mound was therefore, of primary importance. Its survey revealed the presence of semiburied wall, that was more than a meter thick. It was built of local stones, the rhyolites, quartzites, schist as rubble and occasionally bricks.

This was a very long wall. It pointed out that in certain parts it was broken. One of the breakage was by country road. A close observation indicated that below it the wall was running. This observation ruled out the antiquity of the road, and pointed out that it was a later phenomenon.

The other breakage indicated three features : (*a*) the presence of door jambs, (*b*) presence of two circular mounds by its side, (*c*) sloping pavement across the breakage, at right angles to the main line of the mound. These three features in combination, or as one of them absent, indicated the old gate way. This was a very important land mark of the communication system.

The third breakage indicated many sand-stone pieces, but it did not indicate any of the features that were noted above. From this breakage however depressions were seen as was the case of the second breakage. A pursuit of these depressions indicated meanders, rain wash of pebbles and water worn pottery in them. These features pointed out these were the monsoon streams, and the fort had provided for the passage of the running water.

The wall was pursued for a distance of five kilometers. It was a rough semicircle with one off set in the south east, and was running between two hillocks. One of the hillock was known as Saria-Vakaria. The wall disappeared at heavy cliffs of the hill. The other end of the wall touched a hill fort. The constructional feature at this point helped in clearing the point that this wall was an addition to the upper fort wall.

This position helped us to clearly establish the truth of the tradition of the *garbā* that was cited above, in the sense that the lower Champaner was built after the Goddess descended from the Hill fort. If the historical fact of the conquest of Pawagadh in 1484 by Mahmud Begda be interpreted to suggest that the Goddess of the rulers who were defeated also came out of the fort, the local tradition could be dated to a period after 1484 A.D.

Interestingly, it may be pointed out *en passant* that at Pavagadh and Baroda, the peaceful coexistance of Islam and the Sakta panth is clearly seen in the relationship of Sadanshah and Babaman. At Champaner it is narrated that Sadanshah requested the Goddess not to disappear and at Baroda she is treated as the sister of Babaman. The other interesting fact of this coexistence is found in an inscription which declares a donation to a step well, Mosque and Hujara after bowing down to *Gaṇeśa* and *Śāradā*.

The Preliminary reconnaisance helped in marking some parts of the periphery. Out side this periphery as noted above the black natural earth was visible in some parts. But in other parts, the mounds and depressions existed outside it. These archaeological mounds gave interesting features. On the south, the bridge or cause ways, either complete or broken were seen. Beyond them the archaeological mound and depressions were stretching for a distance of about more than a kilometer. In the west they stretched for a still longer distance.

The preliminary reconnaissance out side the periphery indicated a straight, broad depression. Walking on it, pointed out that on both the sides of it rows of walls and fallen debris were seen. This gave an idea that it was a street out side the fort wall. The single room structures with thin debris were possibly the market lines. This observation was tested at other place, where it was true. But the observations at different places indicated different features. At one place, specially on the west, many graves were seen. On the south, the depression pointed out the existence of door jambs on it.

These observations in the beginning did not make any sense, but they indicated the possibility of roads, that suggested the possibility of the discovery of the town plan.

The town plan required road patterns and identification of structural areas, open lands, and the functional aspects of the structures and areas. These would indicate the *raison detre* of the town, its socio-economic and religious set up. This was a formidable task because from known literary writings it was clear that Champaner existed before its conquest by the Gujarat Sultans. The latter made it one of their capitals and hence mediaeval urban centre with large resources grew up. It collapsed by early 17th century, but survived as a district head quarter till its occupation by Sinde of Gwalior.

Though this knowledge existed, very little information was available for this town, its different land use, defence system and many interesting features about the collection of raw materials, industries and its contacts with other areas etc.

As a part of clearing this haze, the first essential aspect was to identify the road system. This was achieved by examining the area from the gates on the prepherial fortwall to the inner area, where a strongly built fort of sand stone ashlar and rubble filling was standing. The roads pointed out that they usually ran in straight lines, on both sides door jambs and entrances were lying either in situ or disturbed from their original position on mounds that ran parallel on both sides of the roads. At a number of points they were connected by similar features that joined them at different angles. Sometimes the roads merged in open spaces and raised fairly complicated problems of identification, but they were successfully tackled by interpretative exploration. The road patterns indicated the main and subsidiary arteries of communication. Interestingly the change of the road pattern was visible at the point, where the Rajput fort was expanded by the Sultans. Here the road system was changed and the difficulties of the passage were increased. The change in the road patterns and their non changing patterns are interesting points in the study of the locality. If parts of Chauhan roads were changed by the Sultans in the 15th century at Champaner, the Gaekwads did the same thing to the road system at Baroda in the 18th century.

As these road patterns and the changes were identified, it was also noted that three systems of the surface of the roads existed. The first was unpaved straight road. The second was semi-paved road. It was paved near the bridges and at the entrance. The third type was paved throughout its length. The paving was of rubble and care was taken to keep the slope tolerable for the animal and cart traction. This type when unused turned to a long heap of rubble, originally this type of surface might have a cover of earth carpet.

These identifications helped in isolating the residential and structural open areas. The structural areas had three types of characters. In the modest one, the remains were indicated by broken roof tiles and a few pot sherds. They did not show the remains of walls, etc. Evidently, these were the huts raised for residential and other usage. The other remains were of rubble and bricks with roof tiles. These were the houses for variety of uses. The third type of structures, had large compound walls with the structural debris having large blocks of *surkhi* and lime strewn over mounds of different shapes and sizes. The fourth was a more compact system. Besides these square and irregular mounds long earth works, circular and square wells, as well as ring walls, step wells of two types circular and long were observed. At some places water channels and Hauz were peeping though the debris.

SKETCHING

These observations in the preliminary reconnaissance had to be systematised for study. The first stage for it was sketching these features. These sketches were not to scale, but they indicated the observed features only. This was a fairly difficult job in the forested area. Often it took several days to understand a part of the area by a team of workers. These sketches formed the base for the next step that is the survey of the entire area, both on the plain and on the hill and cartography.

SURVEYING AND CARTOGRAPHY

No details on maps were available. The area was plotted as a fresh one from the Survey of India sheets and cadastral maps. It was therefore a problem for making study and production of scale maps. The problem was solved by enlarging the one inch sheet to the required scale. It took quite some time to complete this work. Once this task was over, the preparation of the map with the use of suitable instruments was undertaken. Fortunately the Survey of India map had plotted a few masjids on their sheets. They were taken as fixed points and our observations were connected with them by angular and linear measurements. This work was very difficult and time consuming. Patiently, the sketches were used in the survey and the data was plotted. As this survey required measurements and close observation, the clearance of the vegetation from sight lines, and tape lines was necessary. This activity helped in the collection of minor antiquities also. So far as the antiquities of the mediaeval period were collected in this process, we remained satisfied that the work was progressing well according to the programme.

The first part of the survey was over when the main features of the townscape were plotted (Fig. 19a). Then the second part giving the details of the town was undertaken. The whole area of the main town was divided in sectors. As no tradition about its toponyms existed, they were termed alphabetically. The boundaries of these sectors were defined by main roads and Fort walls. This survey was on a much larger scale of $33'=1''$. Mosques, graves, bridges were plotted on the map. The features covered under the mounds were hatched to give an idea of the situations. This work gave the details of the townscape as any of our city map is capable of providing. In the third stage important individual structure, were plotted on suitable scale. Its designs, elevation, constructional features were noted. This work gave very useful information about the variety of planning and artistic work. Thus maps were prepared to give the general out lines, the details of the sectors and details of important structues.

PHOTOGRAPHY

The work required photographic record to indicate the features of the tanks, hills, structures, designs and other work. Black and white and coloured slides were prepared. More than two thousand photographs of the area were taken to explain these features.

INTERPRETATIONS

The most important part of the archaeological activity is the interpretation of the field data. An expert surveyor or an excavator will not be an archaeologist, if he is not capable of interpreting the totality of the archaeological phenomenon that the area is capable of yielding. If this wholistic view point for the study of the locality is lost sight of, it leads to a lot of confusion in the understanding of the personality of the habitat. The interpretations of the data of the explorations were based on stratigraphy, technology, planning, military activities, human needs and the patterns of the habitat. It was clearly established that Champaner had the following stages :

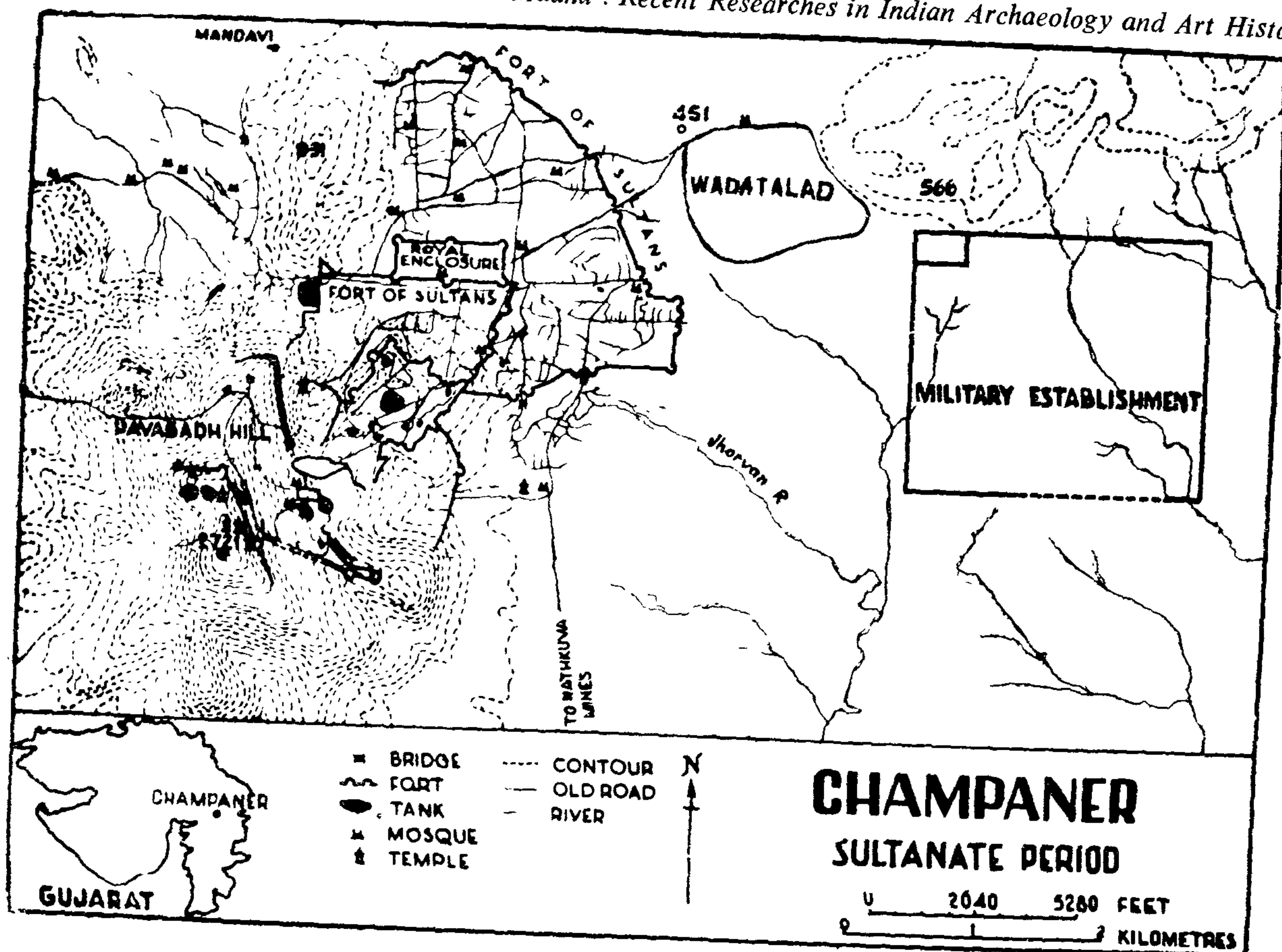
1. Prehistoric Champaner,
2. Early historic Champaner,
3. Rajput Champaner,
4. Sultanate Champaner,
5. District Champaner,
6. Village Champaner.

PREHISTORIC REMAINS

As the measuring of a mediaeval house wall, was progressing a stone tool on rhyolite was obtained. It was obvious enough that such tools were not made in mediaeval period, so the conclusion that this tool was brought as constructional material by those who built this wall was obvious. But it raised a problem for the location of the area of this material. A close search indicated the area from which the tool was obtained. More tools, cores, flakes of this period were obtained. Further work on these remains of Champaner gave the evidence of at least three periods of lithic industries and a possibility of their transition. Biological studies at this site to understand the functions of these stone tools pointed out that trees and plants were probably responsible for the creation and use of some of them. It leads us to a reappraisal of the hunting and food-gathering stage so emphathetically accepted in our thinking, and indicates a strong possibility that in India, hunting as a part of food collection might not have played that important part as is the case of the frozen or semi-frozen lands of northern Europe. The report of this work is available in "Prehistoric Champaner" published by the M.S. University of Baroda.

EARLY HISTORIC CHAMPANER

But the early historic Champaner eluded us for a very long time. Its existance was established by the discovery of rotary quern with cross bar as was known from Nagara, Devnimori and other sites, the



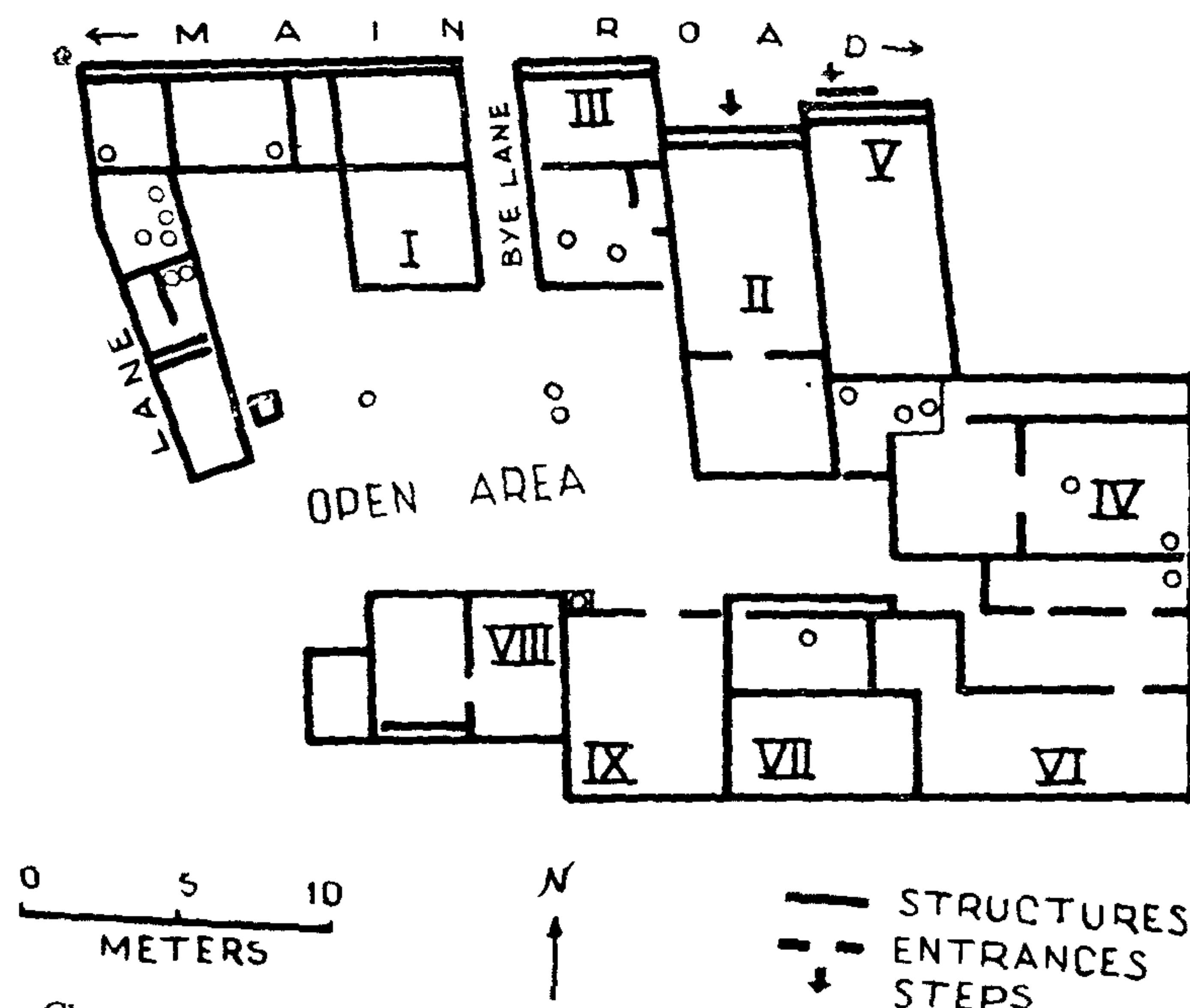


Fig. 19. a. Champaner—Sultanate Period. b. Champaner—Plan of structures, Sector : K 1.

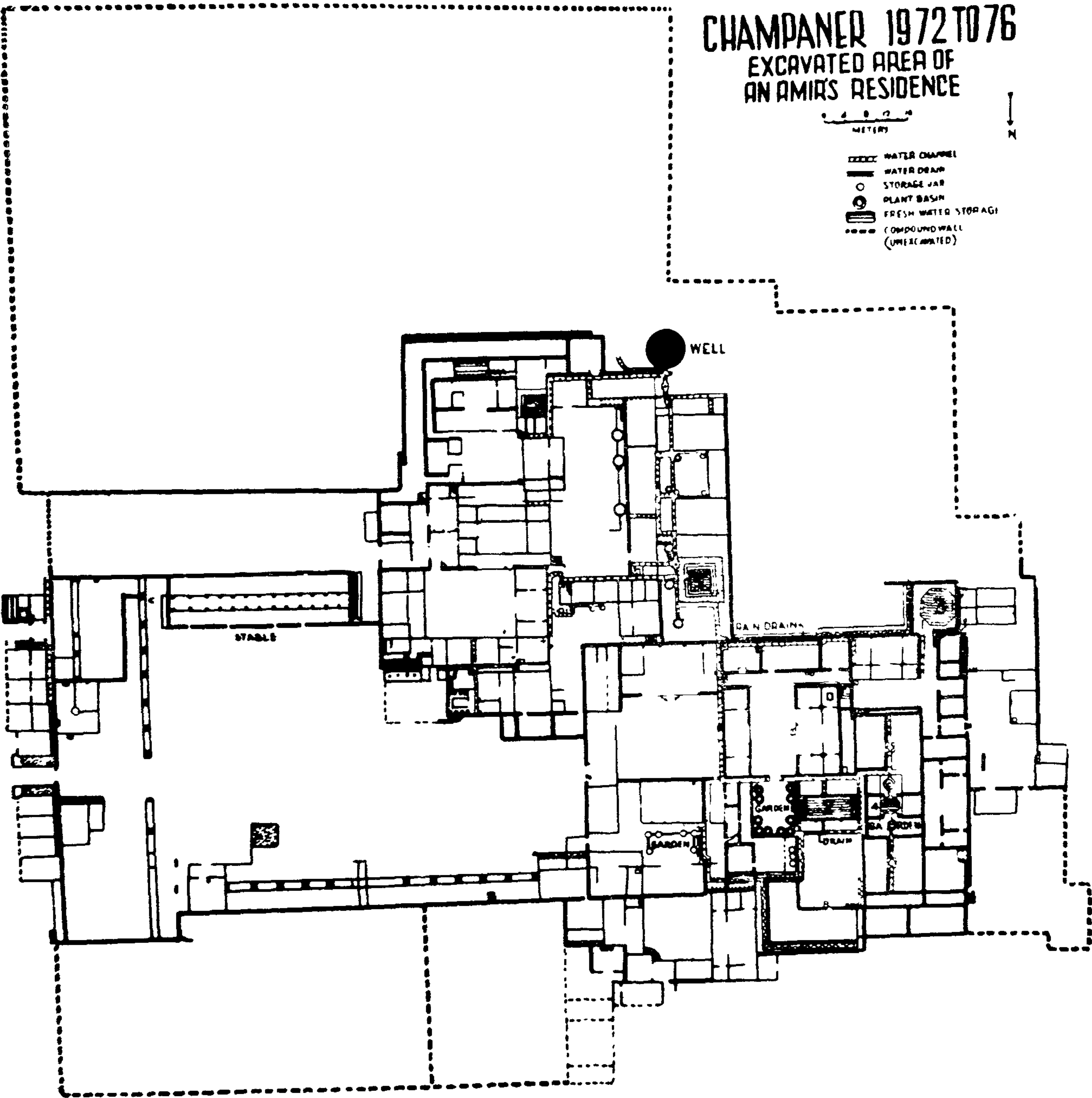
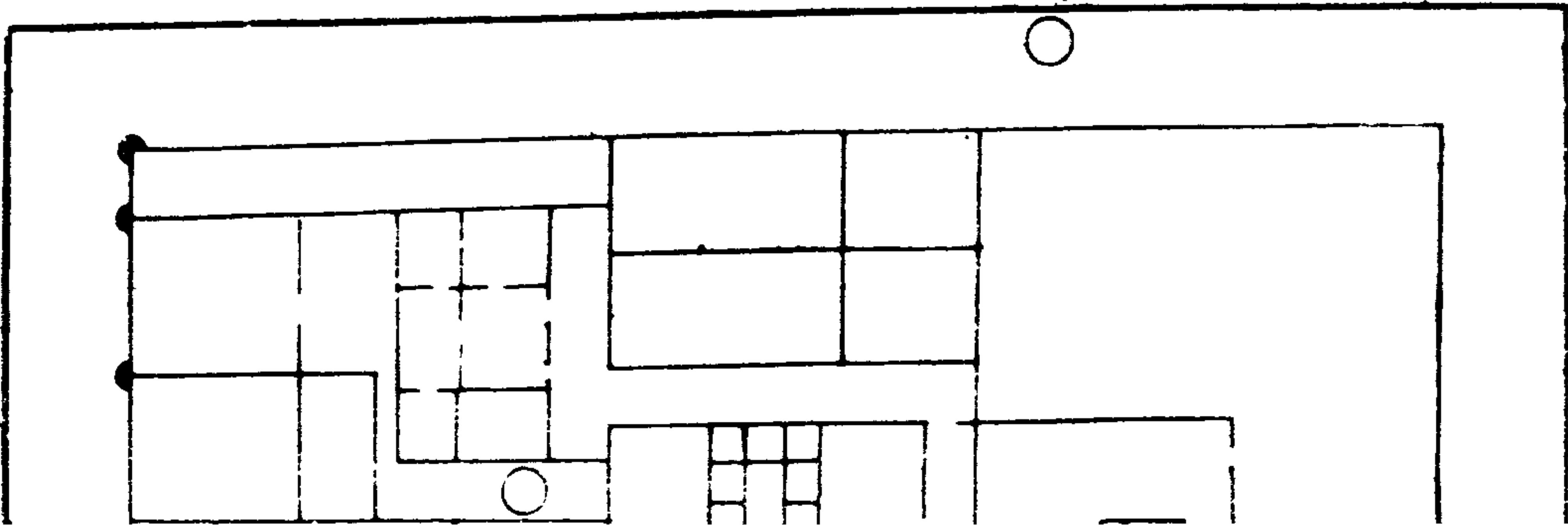


Fig. 20. Champaner 1972-76 : Excavated Area of an Amir's Residence.



copper coins of Sarva Bhaṭṭārka, with the palaeolographic characteristics associated with his silver coins, and some large size bricks. The material is too scanty to make detailed analysis but it is a pointer at least to a small village like habitat, that might have suffered in the large scale activities.

RAJPUT CHAMPANER

The Rajput elements were traced in a fort wall, bastions, gateways, guard rooms, raised platforms and a series of Jain and Hindu temples (Fig. 19 b) water reservoirs, etc. These elements however were traced on the hill. This situation is reminiscent of many Rajput strong holds like Idar, Ranthambhore, Chitod or Tomar fort at Delhi, Jhalore Qila Raisen that occupy rugged country and hill sides. This is significantly a defensive feature. A perusal of the political history of the mediaeval period indicates the movement of armies and glories are sung for the heroic deeds. This literature that bespeak of heroism is well taken to build up the morale of the administrators and their supporters.

But archaeological anylysis seem to tell a little different story at least in the state capitals that are examined. People not only lived within a fortified town, but also many areas had their own cul-de-sae that could be defended, if required. With this emphasis on defence on one side and the notion of private property with its laws of inheritance on the other has its own archaeological parameter.

If the city was attacked it could build up a very strong resistance depending primarily on the will to fight and defend. The human factors of defection, surprise attack, and submission without resistence as well as strong defence and destruction of the attacking army are on record. But a perusal of the city defence system at Champaner, Tuhglaqabad, Siri, and other sites indicate that the need of the time was well served. Constant fear of the enemy is clearly indicated as the major element of city planning in the capitals, whether of the Rajputs or the Sultans or so called, Mugals.

The other aspect was the social need of inheritance. At Champaner the first Amir settlers in the Sultanat period seem to be fairly enthusiastic in purchasing or acquiring large areas (Fig. 20). These were marked off by large compound walls probably with the passage of time however, these compounds were sub-divided for inheritance. But what happened in their houses that had turned into mounds could not be known from explorations and plotting. The changes in the area required further work. That could be achieved by excavations.

EXCAVATIONS

Once the interpretations were undertaken, they gave rise to a series of problems, such as the planning of houses according to Politico-economic status of the individual, the public works such as sarais, the markets and pleasure resorts, etc. The life-style of different groups, the Sultans, his amirs, common people, those who live on one profession or caste groups and other features required the vertical and horizontal excavations from which an effort was made to establish some of these correlates as :

1. Study of road system,
2. Study of internal market,
3. Study of residential area of lower middle-class,
4. Study of residential area of the upper-class,
5. Study of the Palace.

To meet these objectives, grids were laid and excavations were conducted over selected areas with interesting results. The clear position of markets on the road, with shops having a single or two room units with underground cellars were established. The shops specially of copper smiths and Wine merchants were identified.

An area of ten houses of lower middle class was exposed. It constitute houses with one to four or more rooms was opened. A huge complex of the residential area (Fig. 21) of either Baba Gulamali or Abdul Baka was exposed. In this area the first planning and later divisions are identified. The fine garden house with its pleasure resorts and stables, servants-quarters and its guest-house, its running water and other features were opened up. Further work is essential on this line on other parts of the city.

CORRELATIONS

This work lead to the study of literary and folk-traditions and their correlation with the materials obtained from archaeological work. This is an extensive work, it may be pointed out that in this work the traditions of the name of Champaner were reexamined. One of them is recorded in Rāsamālā that it was built by one Champa a Minister of Vanarja Chavada. The ruler was responsible for the building of Anhilwad Patan.

Though this is a strong trading, the political history as well as archaeology do not support it. During this period this area seem to be in the Rāṣṭrakūṭa control and hence there was no possibility of the minister of another state to build a town in this territory. Archaeologically no evidence of any large scale work exist here.

Another traditlon ascribe the city to Champa Bhil. This is unsupported because the place identified as his residence is uncertain and all these places have the structural relics of 15th/16th centuries A.D. Moreover the area abounds in Rathwas and Naiks, not the Bhils. So anthropology and Archaeology rule out this possibility.

This being the case, the investigations revealed that the hill the upper part is composed of rhyolites that have the Champaka colour. The author of *Gaṅgādāsa Pratāp Vilāsa* compares the hill with *Kanakonmāda* and has the pun on *Champaka* coloured women of *Champaka Nagara*. It is, therefore, a topographical features of the colour of the area that has given this name. Such examples in Suvarṇamañjarī area, Songir, etc. are well known to justify this correlation. Detailed analysis of other traditions is also undertaken.

CONCLUSIONS

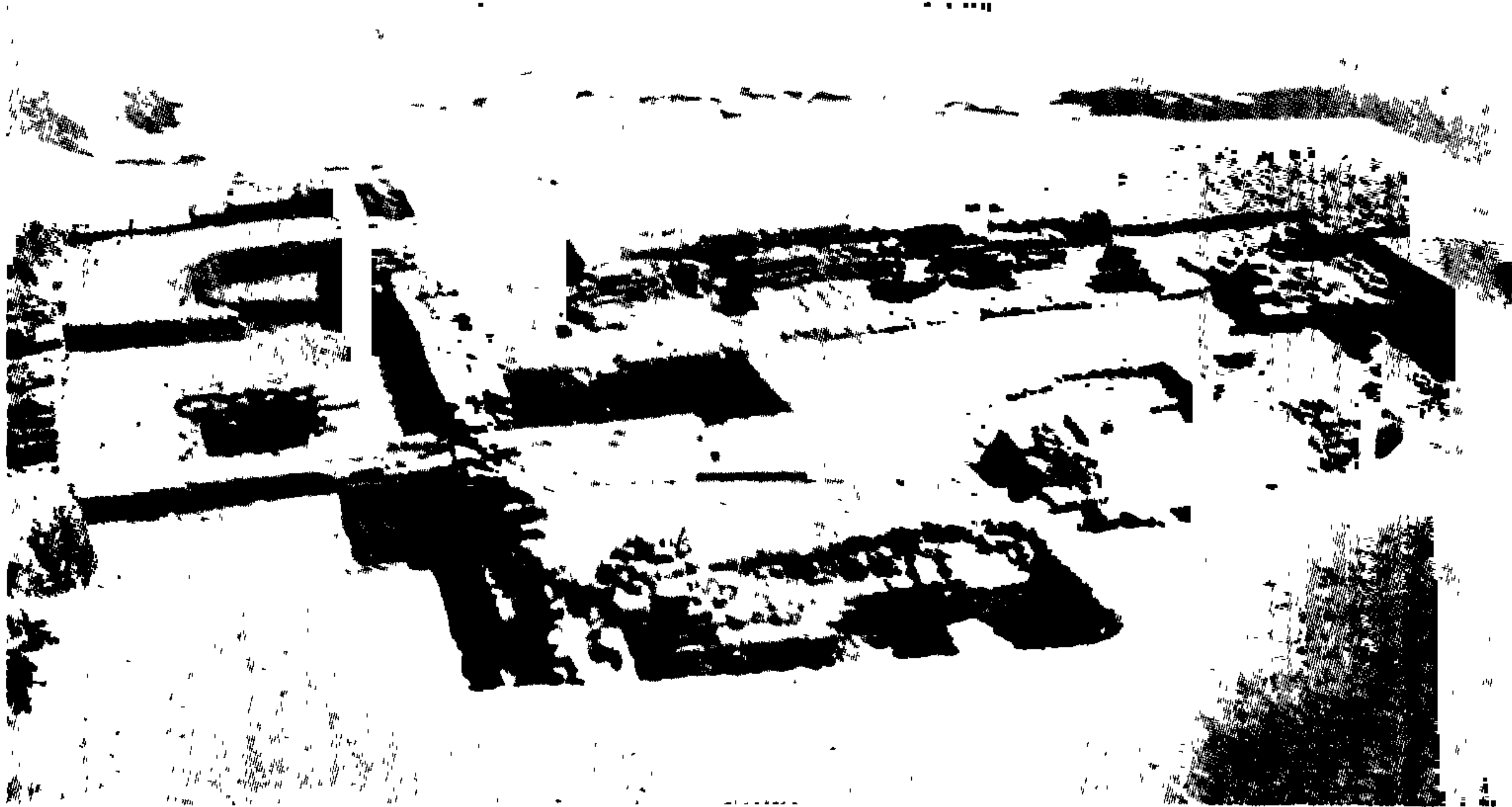
Experiments of intensive explorations and excavations conducted on a Mediaeval site to develop the potential of Mediaeval and Urban archaeology indicate that they could be applied to various capital of India, with success.

The survey of a site of comparatively late period is also an essential function of archaeology to understand what happened in the past. It is capable of adding new information and interpretation for these periods also.

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4. *Mā Pāvā te Gaḍhtlū Ūtāryān Mahākālī Re*
   Vasāvyuñ cāmpāner Pāvā Vālī Re
   cāmpaner nā cār cautā mā.
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EXCAVATIONS AT VADGAON-MADHAVPUR



a. Remains of an apsidal structure.



b. Large Structure with a room, having storage bin, water-cistern and three fire places.



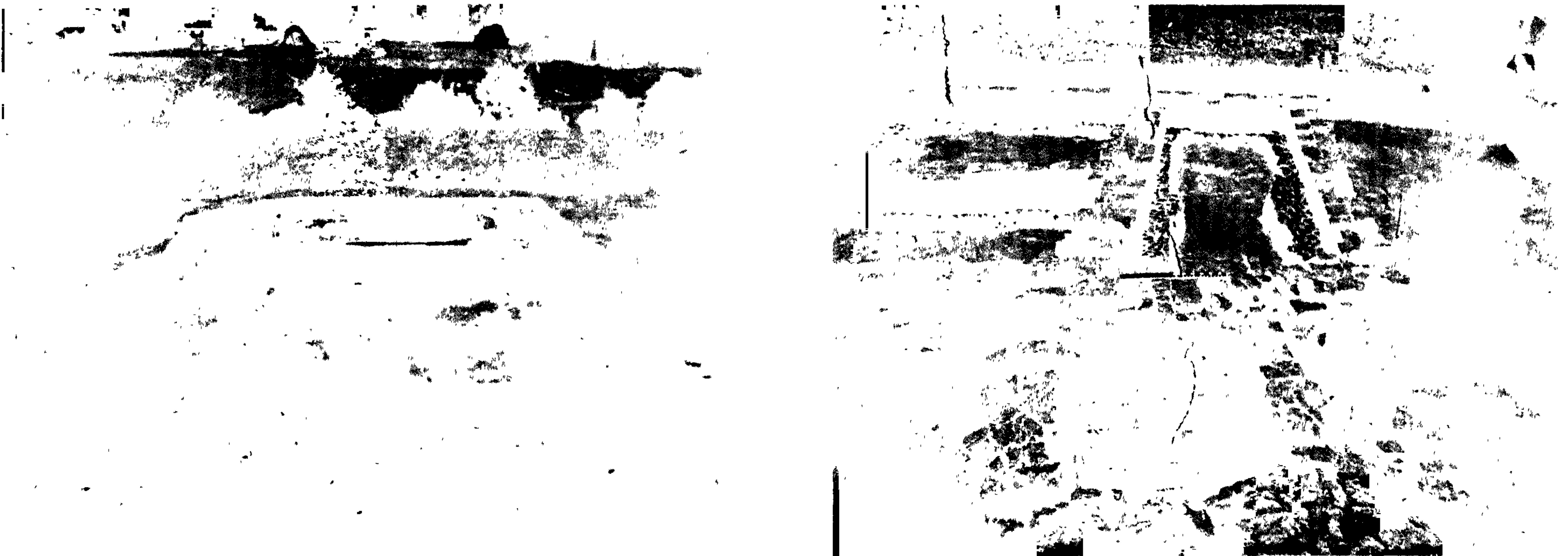
c. Two-roomed structure with a circular brick well.



d. Same as c, view from east.

VADGAON-MADHAVPUR

Plate XVIII



a

b



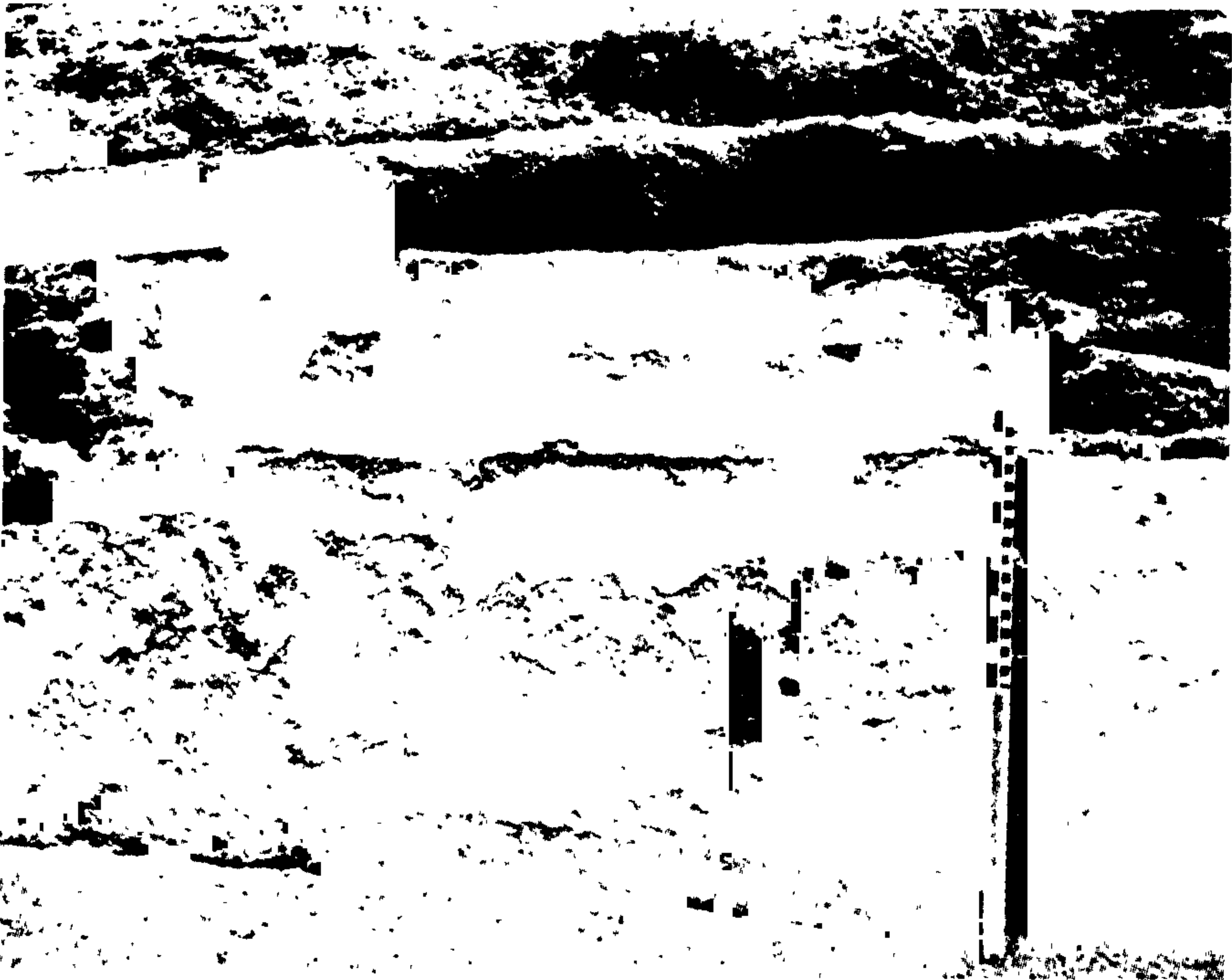
c



d

a-d. Brick Structures.

VADAGAON-MADHAVPUR



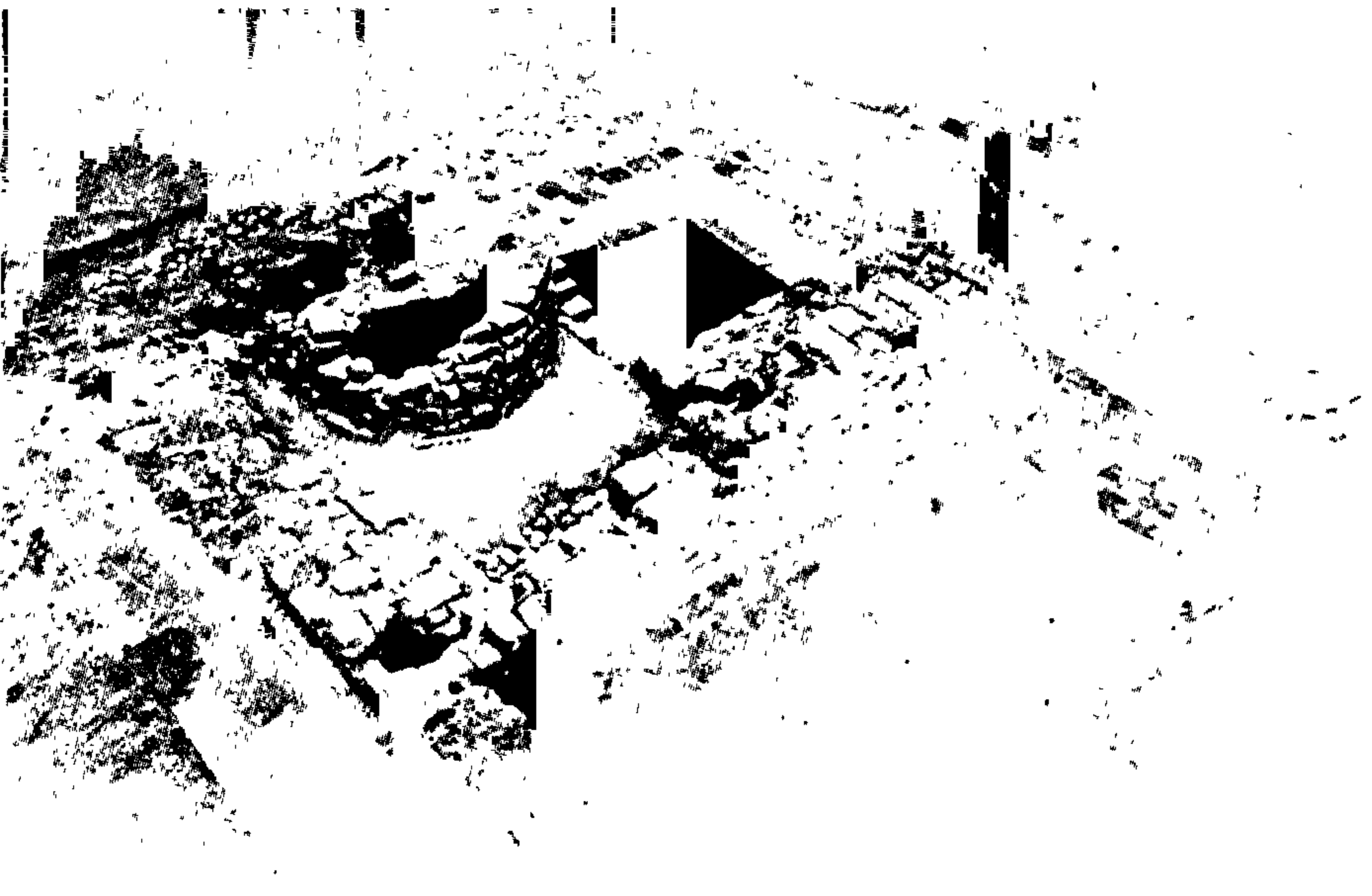
a. Section showing florings.



b. A street lined with remains of buildings on either side.



c. A laige structure.



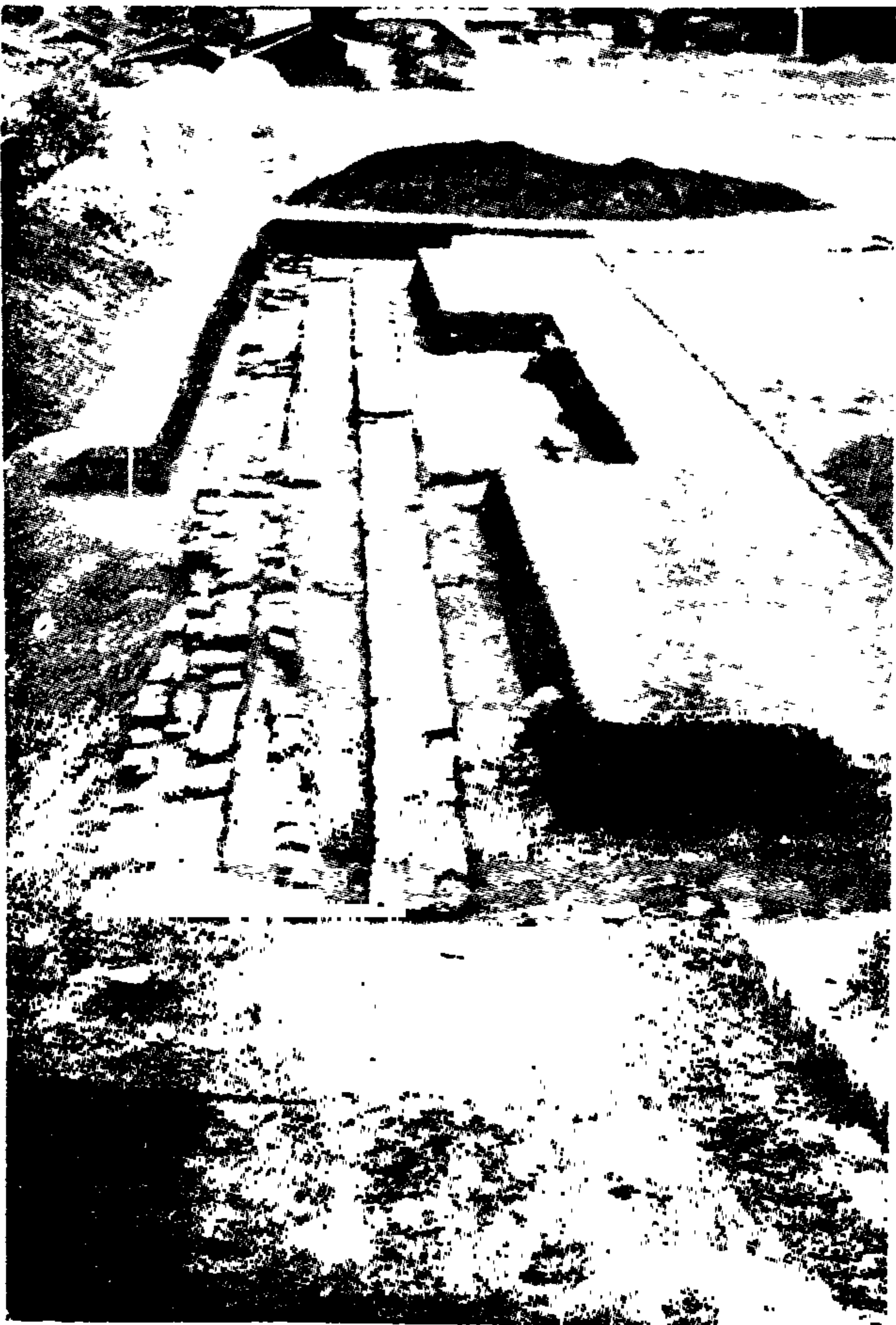
d. Details of portion of the structure.



b. Brick structure.



a. A lengthy wall with parallel brick lines.



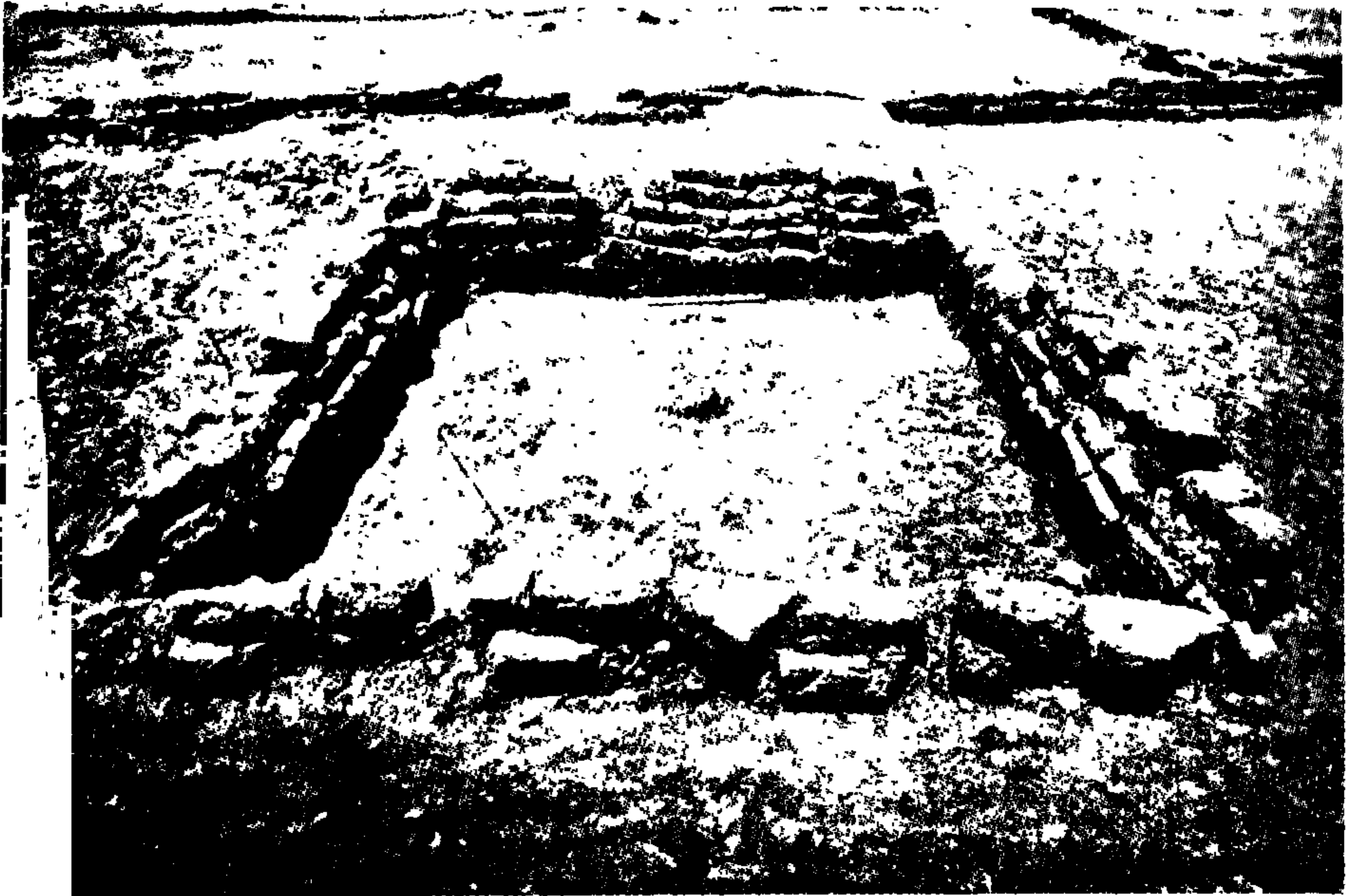
c. Same as a, opposite view.



a



b



c

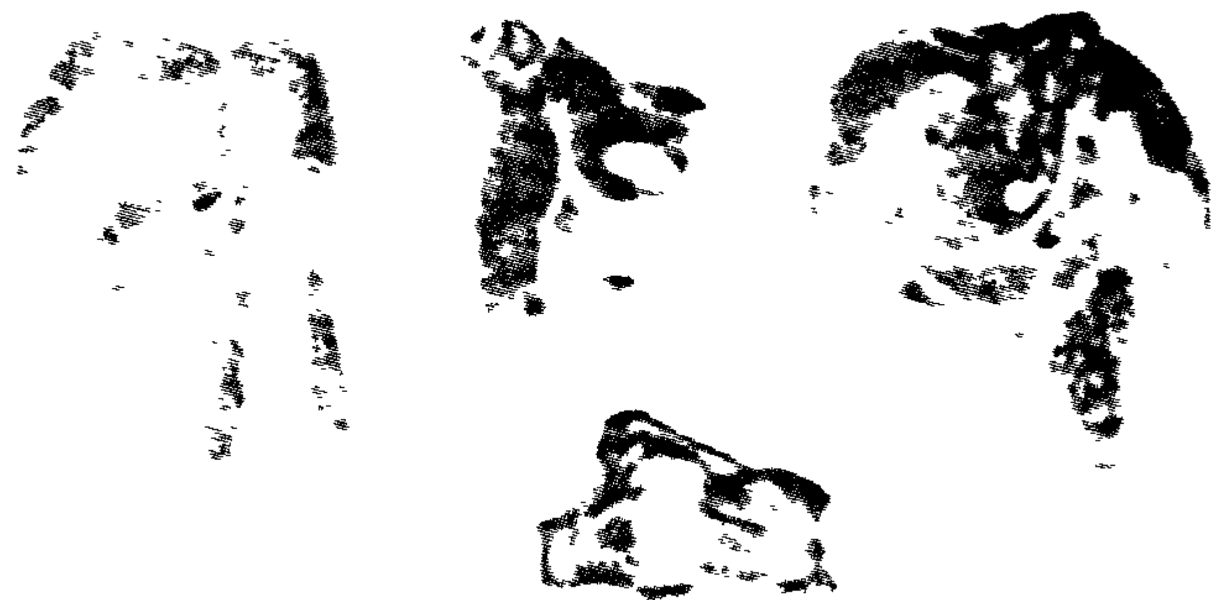


d

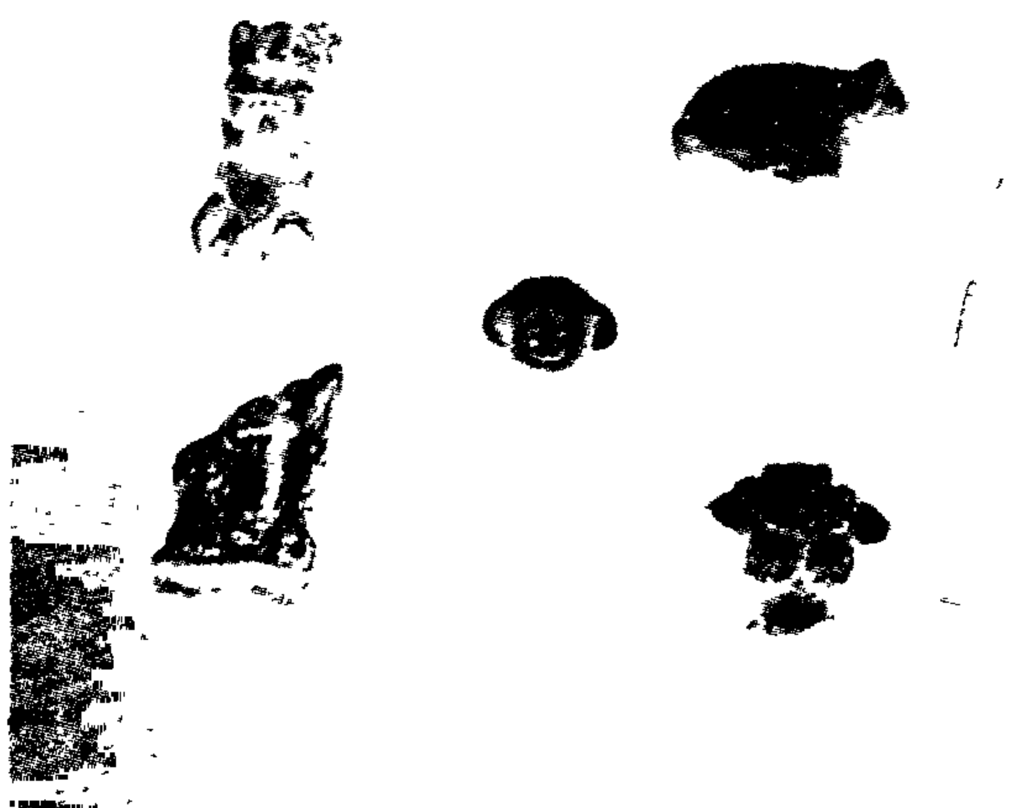
a–d. Brick structures.



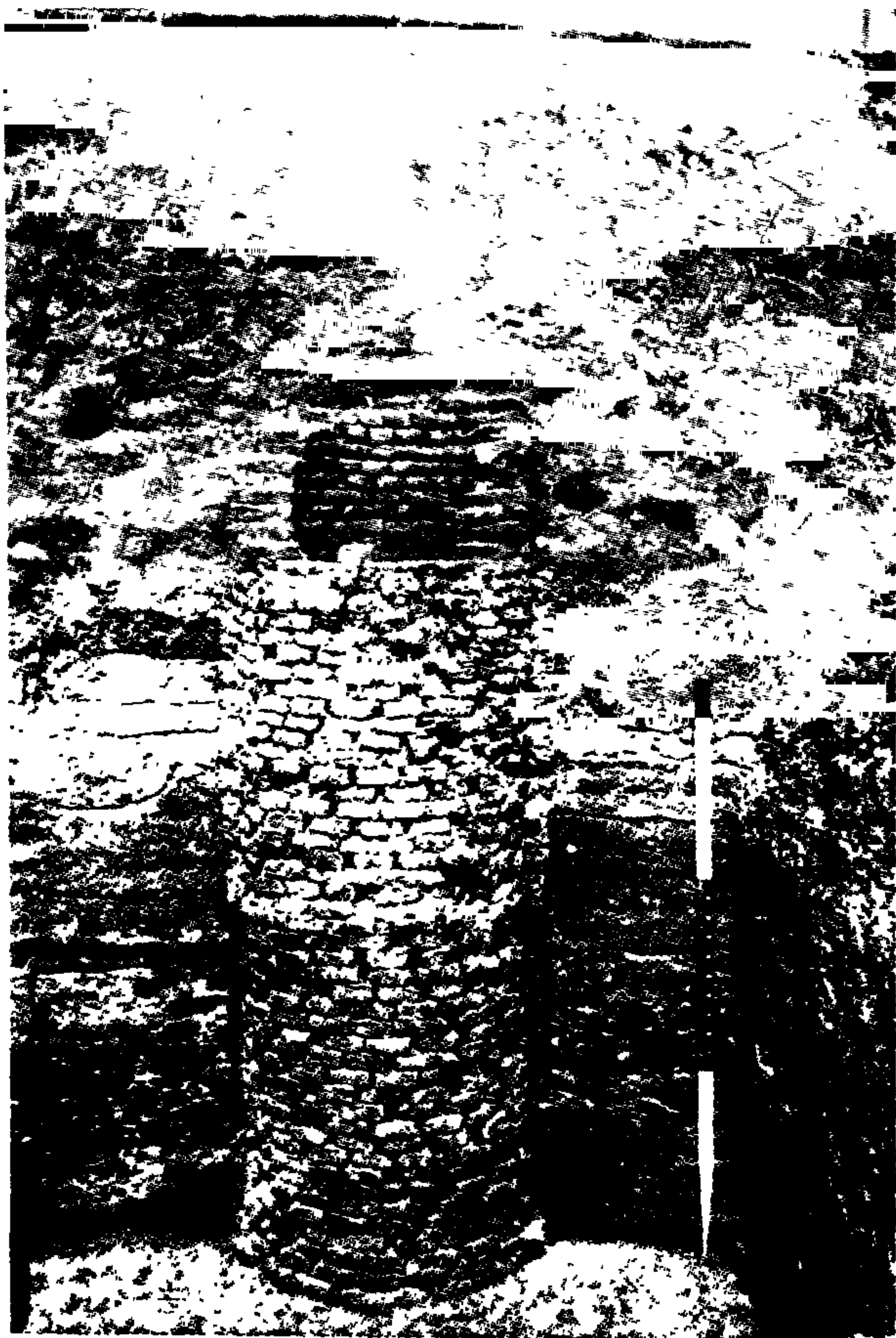
a. Section showing cultural deposit.



b. Terracotta figurines.



c. Terracotta figurines.

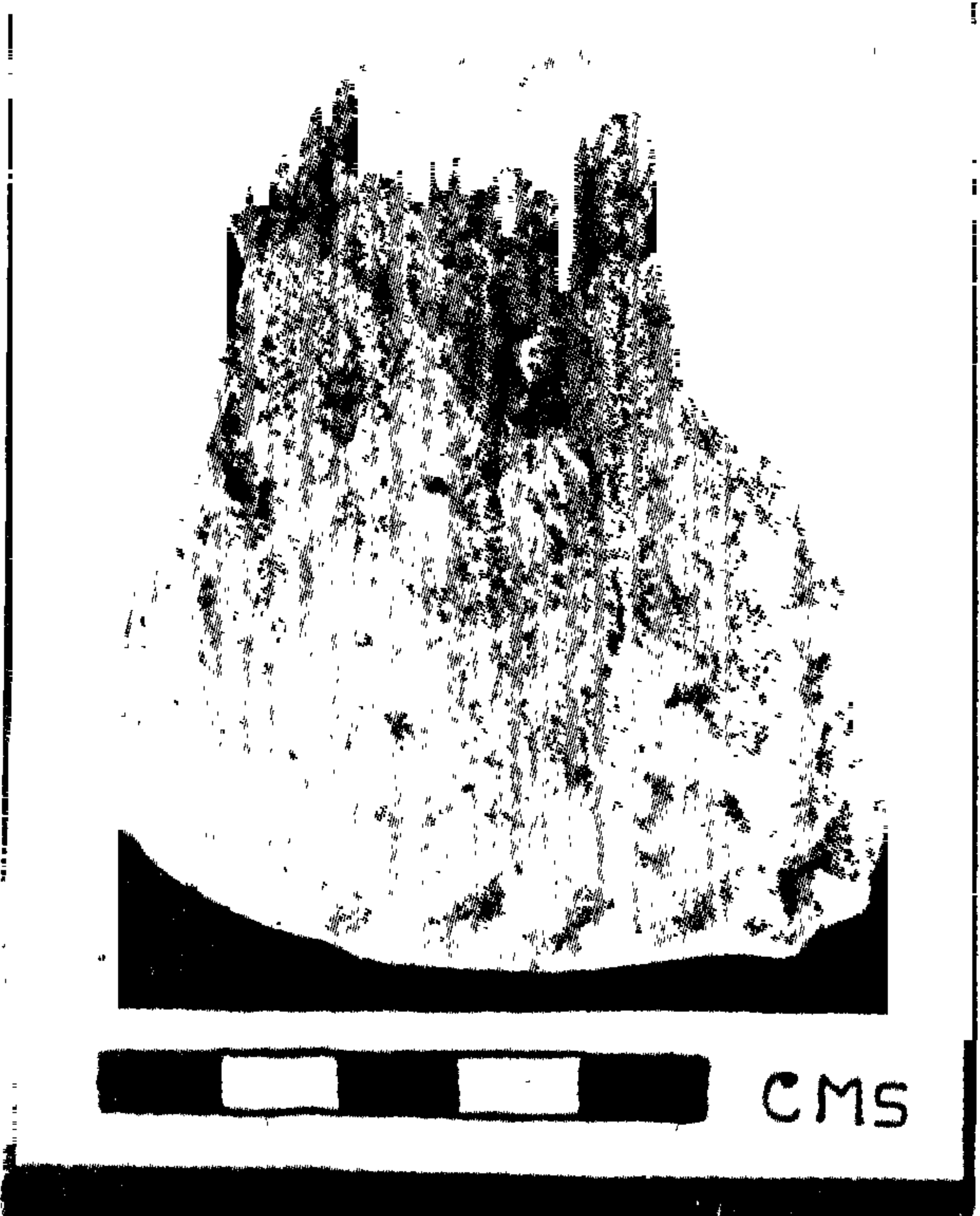


d. A brick well dug up to natural soil.

VADGAON-MADHAVPUR



a. A sprinkler.



b. Terracotta plaques and figurine.



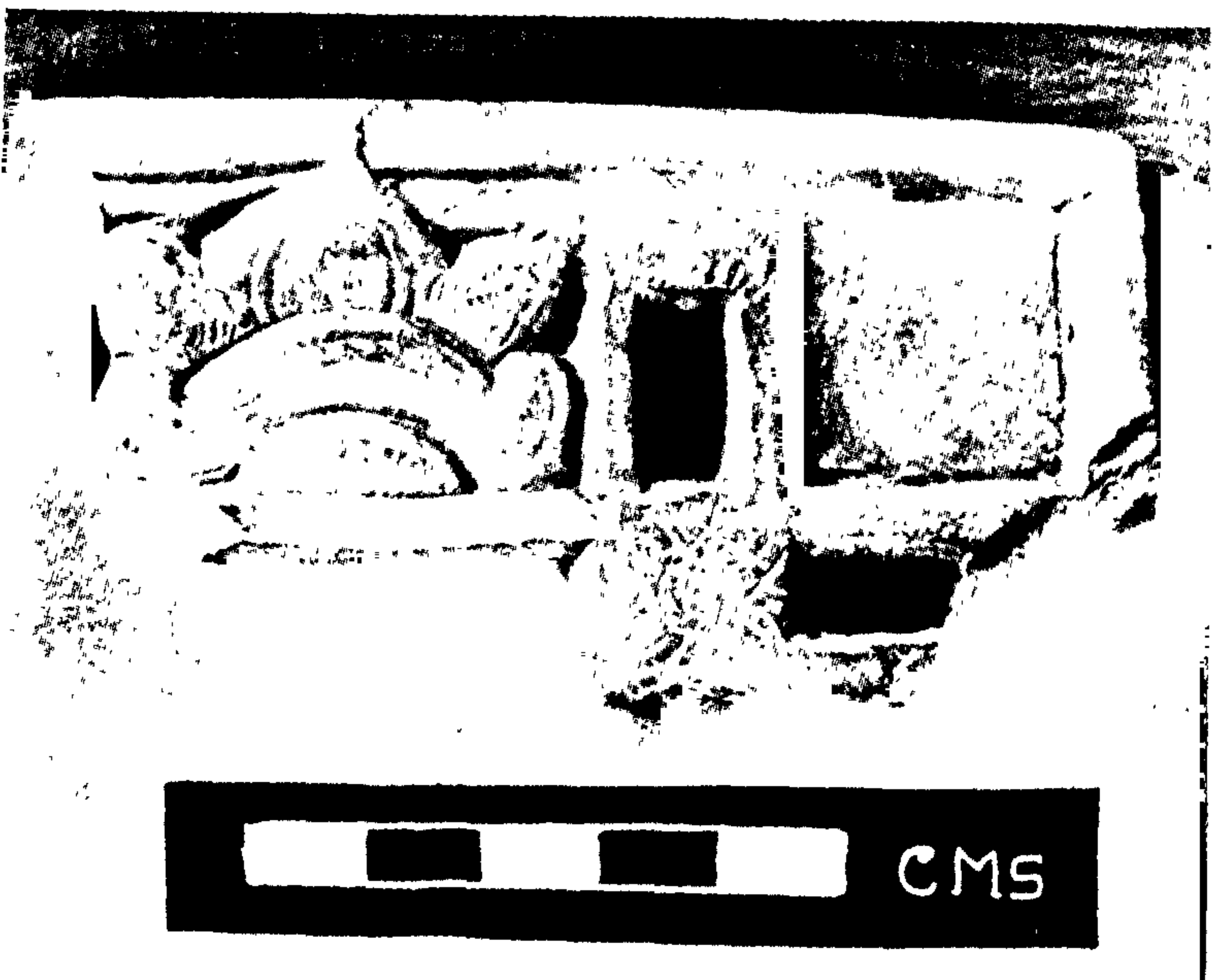
c. Terracotta plaques and figurine.



d. Terracotta plaques and figurine.



e. Terracotta plaques and figurine.



f. A stone plaque.

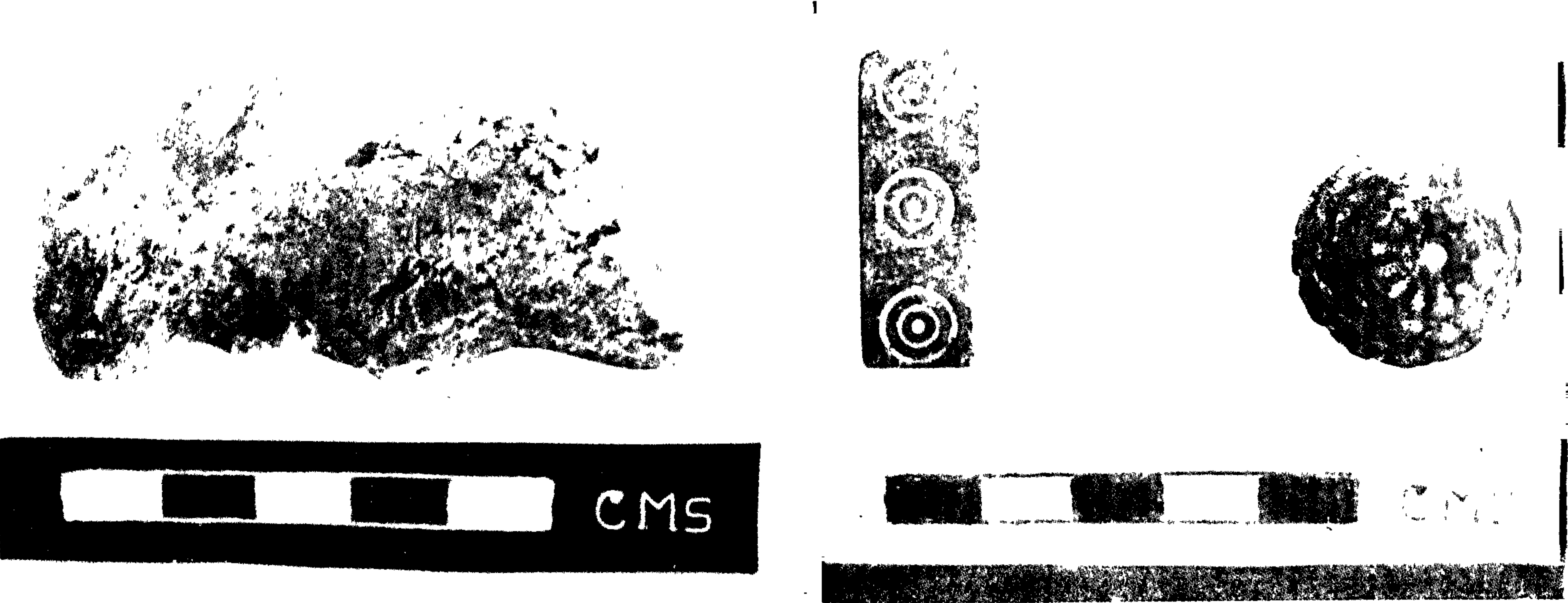
VADGAON-MADHAVPUR



a. Terracotta figurines.



b. Cylinder-seal impression on a rim of a jar.



c. Terracotta bull.

d. Terracotta Pawn and ivory dice.



e. Terracotta head of an elephant.



a

a-b. Terracotta figurines from Amreli.

b

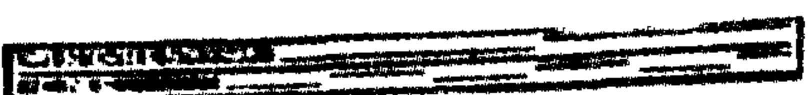
GUJARAT TERRACOTTAS









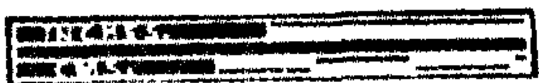


a. Male figurines—Amreli.





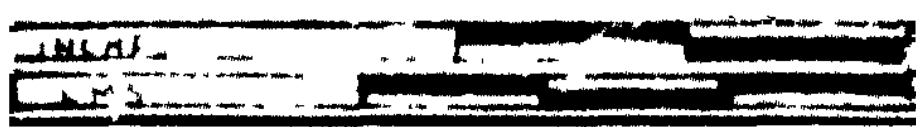




b. Male figurines—Junagad (Uparkot).

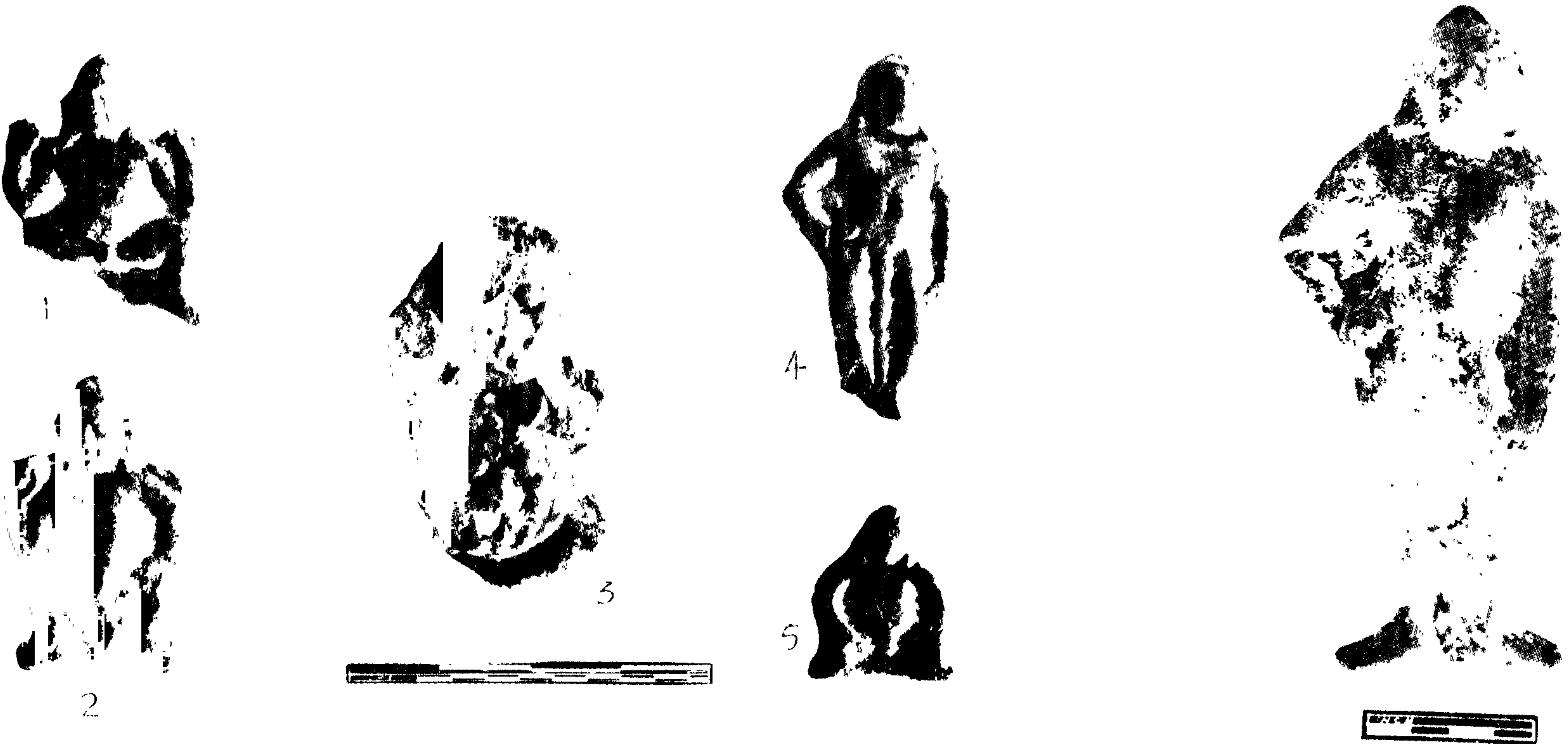






c. Clay bullae.

GUJARAT TERRACOTTAS



a b

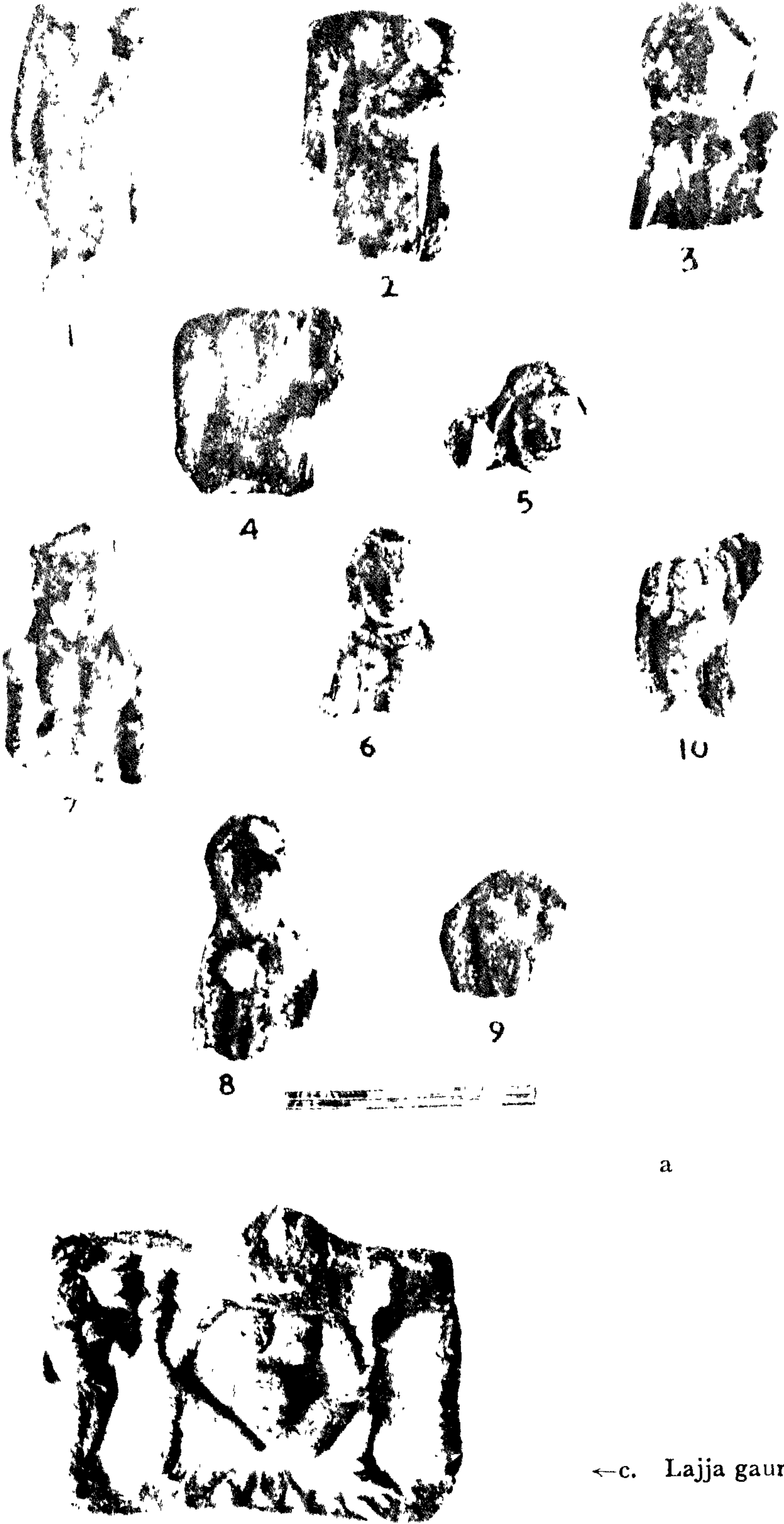
a-b. Male figurines—Junagad (Uparkot).

GUJARAT TERRACOTTAS

a-b. Female figurines—Amreli.



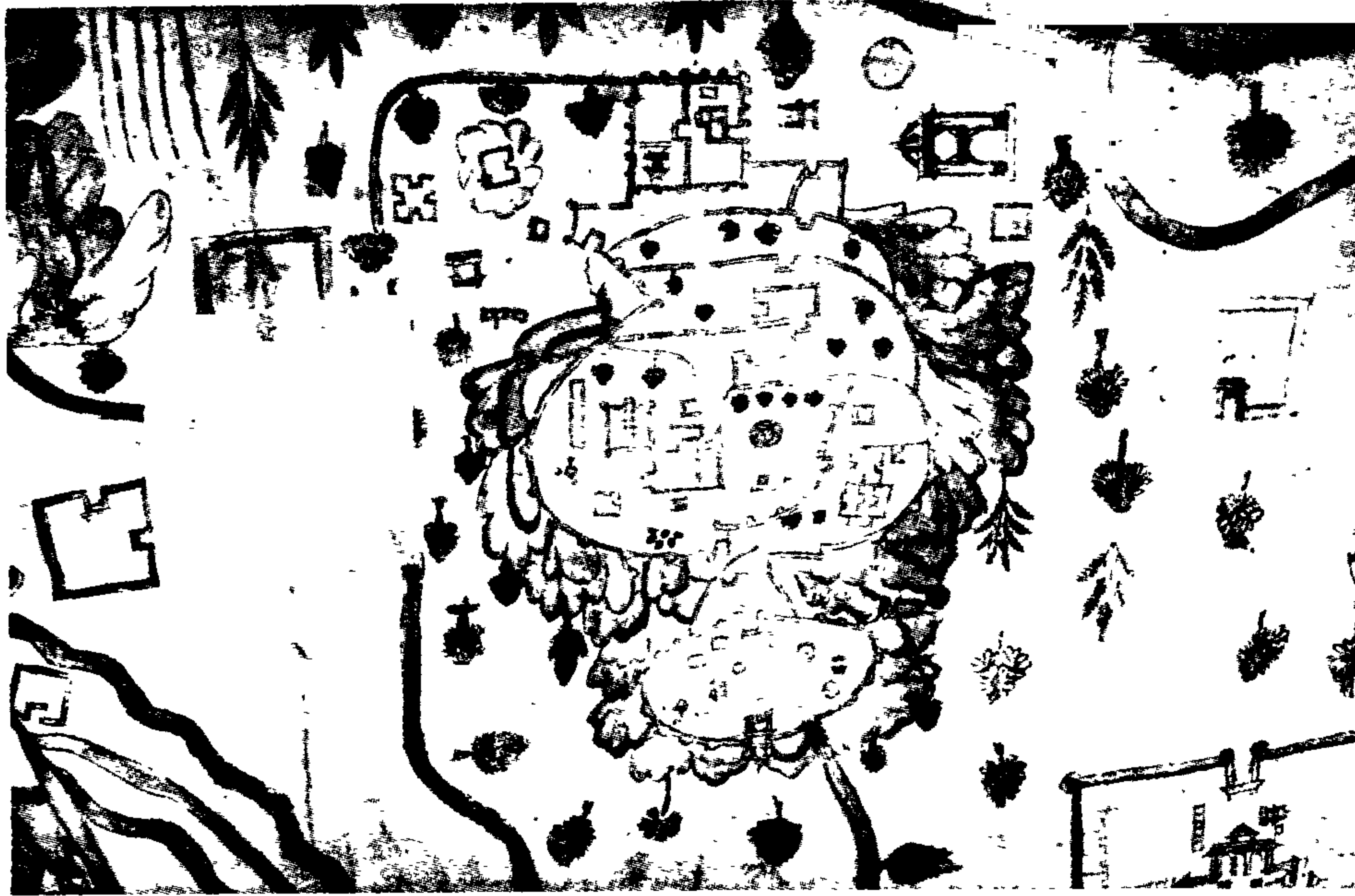
b



a



←c. Lajja gauri plaque—Kanad.



a. Champaner—on an 18th Century Map of Gujarat.



b. Temple of Lakulisa on Mauliya Champaner.



Amir Manzil—View from North.

C. Architecture

XXI

The Beginnings of Mahayana Architecture at Ajanta

M.K. Dhavalikar

The chronology of the later group of caves at Ajantā has proved to be a knotty problem in spite of the best attempts by several scholars. The general opinion seems to place all the Mahāyāna caves in the last quarter of fifth and sixth century or later. According to Fergusson and Burgess: "It certainly seems to be the case that all or nearly all the remaining 21 caves at Ajantā were excavated between the years 500 and 650 with a very little margin either way before or after these dates".[1] This dating has generally been accepted by several scholars.[2] But the most noteworthy and exhaustive study is that of Walter Spink who, after a careful analysis of the architectural evidence of the caves, has attributed them to the latter half of fifth century. He is of the opinion that "The Mahāyāna phase at Ajantā was one of remarkably intense patronage and remarkably swift development, and that the entire group was the work of a couple of generation".[3] Be that as it may, it is apparent that none of the scholars seems to think that there was any architectural activity at Ajantā in the pre-Harisena period so far as the Mahāyāna caves are concerned. The present paper attempts to show that the Mahāyāna phase at Ajantā began in the pre-Harisena period, possibly in the first half of fifth century, and that it was this activity which finally led to the standardised plan of *vihāra* represented by Caves 16 and 17 at Ajantā.

Art historians have divided the Buddhist rock-cut temples of Western India into two categories viz. the Hīnayāna and the Mahāyāna. It is generally thought that they are two distinct groups widely separated from each other, at least stylistically. Furthermore, the hiatus of three centuries between two groups has widened the gulf. It is supposed that the Hīnayāna activity came, as it were, to a grinding halt in second century A.D. and that the rock-cut architecture again began in the last quarter of fifth century during the reign of Harisena when an entirely new type of *vihāra* came into being. Although apsidal *chaityas* are met with in the Mahāyāna group, the *vihāra* becomes a self-sufficient unit with a hall, cells for monks and a shrine with *Būddha* image in the back wall. It should be emphasized that we have never tried to trace the evolution of the Mahāyāna *vihāra* typified by the Ajantā examples. It becames all the more enigmatic in view of the magnitude of the evidence. It will thus be seen that although the early and the late phases of the Buddhist rock-cut temples have been studied in great detail, we do not know absolutely anything about the transitional phase. The fall of the Sātavāhanas no doubt was responsible for the decline of the cave architecture in Western India. Fergusson and Burgess observe : "It is not at present possible to state with precision the exact period at which the transition from Hīnayāna to Mahāyāna took place...the last caves of the Hīnayāna are those at Nasik and their age depends on our being able to ascertain when Gautamīputra excavated No. III and what Yajñaśrī really did in No. XV. Even then the uncertainty that hangs over the lists of the Andhrabhṛtyas prevents our being able to fix these dates with certainty. It is probable they reigned in the third century, but nearly as probable, that the last named king flourished in the fourth. Be that as it may, there seems to have been a pause in the fashion of excavating the caves after the disappearance of these Sātakarṇis. We have no cave that can with certainty be dated in the fifth century, probably not one in the latter half of

the fourth, but with sixth century the practice was resumed with vigour and during the next century and a half nearly all the Mahāyāna caves were excavated."[4]

Even at Ajantā, there is a hiatus of about five centuries between the early and the later group of caves. For the chronology of the later group, cave 16 is usually taken as a fixed datum because of the epigraphical record in the cave. It is supposed to be one of the earliest in the Mahāyāna group. But it is necessary to trace the evolution of the typical Ajantā *vihāra* represented by cave 16. The Ajantā series, however, cannot be studied in isolation. A careful analysis of the available evidence will show that the architectural activity continued in Western India, albeit on a restricted scale, during the third century and possibly the fourth as well. It is this activity which finally gave birth to the standardized *vihāra*, excellent illustrations of which are to be found at Ajantā. The evidence is furnished by the late Hīnayāna caves at Junnar, Kuda, Shelarwadi and Mahad. These caves have not so far attracted the attention of art historians for the simple reason that they are devoid of sculptural ornamentation and are severely plain; some of them are not even completely finished. But they are nevertheless of crucial importance in as much as they form a link between the Hīnayāna and the Mahāyāna caves[5]. They throw a flood of light on the beginnings of the Mahāyāna architecture at Ajantā.

The Hīnayāna *chaitya-gṛhas* are usually apsidal in plan with a *stūpa* at the back. A noteworthy change in the plan first taken place at Ajantā itself where cave IX is quadrangular in plan, although the pillar order is apsidal.[6] This marked deviation in the plan represents a bold attempt which is paralleled only by the apsidal *vihāra* at Bedsa.[7] This is a major significant step towards the evolution of the Mahāyāna *vihāra*. The examples of quadrilateral *chaityas* are few and far between; they are found at Junnar, Karad, Kanheri, Kuda, Shelarwadi and Mahad. They are modest excavations and many of them such as those at Kuda contain inscriptions which help us in dating them approximately on grounds of palaeography.

The change in the plan introduced in first century B.C. at Ajantā is also effected at Junnar where it is developed further.[8] The Lenyadri *chaitya* (cave VI) conforms to the standardized form of the Hīnayāna *chaitya*. It is apsidal in plan and has its pillars disposed in the usual manner around the *stūpa*.[9] The pillars however, vanish in the Aṁbikā *chaitya* on the Manmodi hill which, though unfinished, was possibly intended as an apsidal shrine.[10] The *chaitya* in the Bhimaśaṅkar group marks a further stage of development.[11] The *chaitya* No. XV in the Lenyādri group and two in the Śivneri group[12] are in the same tradition. Some of these caves contain inscriptional records which, on palaeographical grounds, are attributed to the reign of Pulumāyi in the middle of the second century A.D.

There are a few quadrangular *chaityas* at Kanheri but they cannot be approximately dated in the absence of any significant architectural features. But the most important evidence is furnished by the caves at Kuda which belong to the Hīnayāna series.[13] They also have in addition copious inscriptions which are useful in dating the caves. The change in the layout of the *chaitya-gṛha* is further developed at Kuda. It consists of a rectangular shrine containing a *stūpa* and joined to the pillared verandah which also has a cell in the left wall.[14] Cave XV at Kuda is similar to cave IX in all respects but has, in addition, a cell in the right wall of the verandah as well.[15] The next stage of development is witnessed in Cave I which consists of a rectangular shrine containing a *stūpa* and joined to the hall by a vestibule (*antarāla*). The verandah in the front has a cell in the left wall containing a bench which indicates that it was used for residential purposes. Cave VI is similar to cave I in all essential details but for the cell which is carved in the left wall of the *antarāla*.[16] Besides, in the back wall of the cell is a recess which was probably intended for storing valuables. Thus we witness a complete transformation of the *chaitya* from apsidal into a quadrangular shrine. The Kuda caves represent the first instance where the idea of combining the shrine and the residence takes concrete shape.

All the *chaitya-gṛhas* at Kuda contain carefully engraved inscriptions which show developed forms of several letters such as *ya*, *dha*, triangular *sa*, flat based *gha* and *ha*, etc.[17] These can be compared with those in the Kṣatrapa records of third century. Similarly, letters *a* and *ka* are elongated as in the Ikṣvāku epigraphs from Nagarjunakonda. In fact, they closely resemble the latter. We may not, therefore, be far off the mark if we place the Kuda caves in the third century. Incidentally, it may be

noted that all the Kuda caves are the work of the family of Māṁdava Mahābhoja Skandapālita who, surprisingly enough, does not mention the name of his overlord. The latter half of third century was a period of stress and strain; the Sātavāhanas had vanished from the scene and local chieftains very probably had become independent. The Mahābhoja of Kuda seems to have carved out a principality of his own.

Cave VI is the only cave at Kuda which is adorned with sculptures.[18] Of the two principal panels in the hall, that on the left depicts a life size *mithuna*. Stylistically, it appears to be later then the *mithunas* sculpted in the Yajñaśrī cave at Kanheri.

One of the *chaitya* caves at Karad (XLVIII) is similar in conception to cave VIII at Kuda. It consists of a pillared verandah with a quandrangular shrine with *stūpa* in the back wall and also has four cells for monks, two each on either side of the shrine.[19] The Shelarwadi *chaitya* marks an important stage for it has a rectangular *stūpa* shrine attached to a squarish hall having cells on all three sides except at the front.[20] It is thus stylistically closer to the Ajantā *vihāras* of the Mahāyāna group. This cave has been dated to the time of Vāśiṣṭhiputra and Gautamīputra Sātkarṇi by Bhagwanlal Indraji.[21] But it can stylistically and also palaeographically be assigned to the late third century.

Two more illustrations from Mahad (or Pala) complete the process of standardization. The *chaitya* cave No. VIII consists of a squarish hall with a verandah at the front and eight cells in the side walls of the hall; three each in the sides and two in the back wall flanking the shrine. The *chaitya* is hewn out of the rock and only the umbrella attached to the roof remains. An inscription in the cave records that the *chaitya-gṛha* together with eight cells and two cisterns were the gift of a prince Kaṇabhoa Veṇhupālita. The epigraphical evidence is a concrete proof ot the combination of a *chaitya* and a *vihāra*.[22]

The *chaitya* cave No. 1 is not only the latest excavation at Mahad but also appears to be the latest of the early series.[23] It consists of a quadrangular hall with a pillared verandah and there are very crudely excavated cells in the left and the back walls. In the centre of the back wall is a rectangular shrine wherein a rough squarish mass of rock was probably intended for the *chaitya*, but a seated *Buddha* has been roughly sculptured on the front of it in low relief with attendants on each side and the *dharma-chakra* and the deer below, while other attendants are carved on the right and left sides of the block. At the back, another sitting figure of *Buddha* has been roughly indicated. On palaeographical grounds, the Mahad caves can be assigned to late third century or even to the fourth if we accept the evidence of the triangular *sa* in the epigraphs which incidentally is an early Gupta form.

The *chaityas* at Mahad have an almost exact parallel at Ajantā in cave XV which consists of a quadrangular, astylar hall (Fig. 22 a). It once had a verandah at the front which is now ruined. Its pillars have collapsed, but only two pilasters remain. There is a cell each in the side walls of the verandah; they are severelly plain. The entrance door to the hall is flanked by a small plain window on either side. The doorway, however. is carved (Pl. XXXI a). On the lintel are carved five *Kīrtimukhas* of which the central one is flanked by two doves which are shown pecking grains. The lower part of the lintel has a *stūpa* crowned by a five-hooded *nāga*—probably representing *nāga* Muchalinda. The base part of the *kīrtimukha* at either end is slightly cut by the tree of the river goddess. It is, therefore, possible that the river-goddesses on either side are an afterthought. On the door jambs are a river-goddess standing below a tree. Below the goddess is a pilaster at the base of which is a dwarf (*gaṇa*) supporting it. It reminds us of the atlantes in the Nasik cave No. 3.[24] Above the dwarf is a vase with ornamental foliage coming out of it. In the central part is a male attendant holding a lotus in his right hand; he can, therefore, be identified as a *Bodhisattva*. These figures have doubtless been added later because they have cut the earlier ornamental band on the pilaster which can be seen on the right. This is also evident on the left jamb where the band is seen on the inner side of the jamb while the lowest ornamental band is cut on the front for carving the figure of the attendant.

The hall of the cave, as noted earlier, is quadrangular and astylar. It has four cells in each of the side walls. In the back wall, on the left of the entrance to *antarāla*, are carved two small panels of which the one on the right is smaller. Both the panels depict *Buddha* sitting with a male attandant on either side

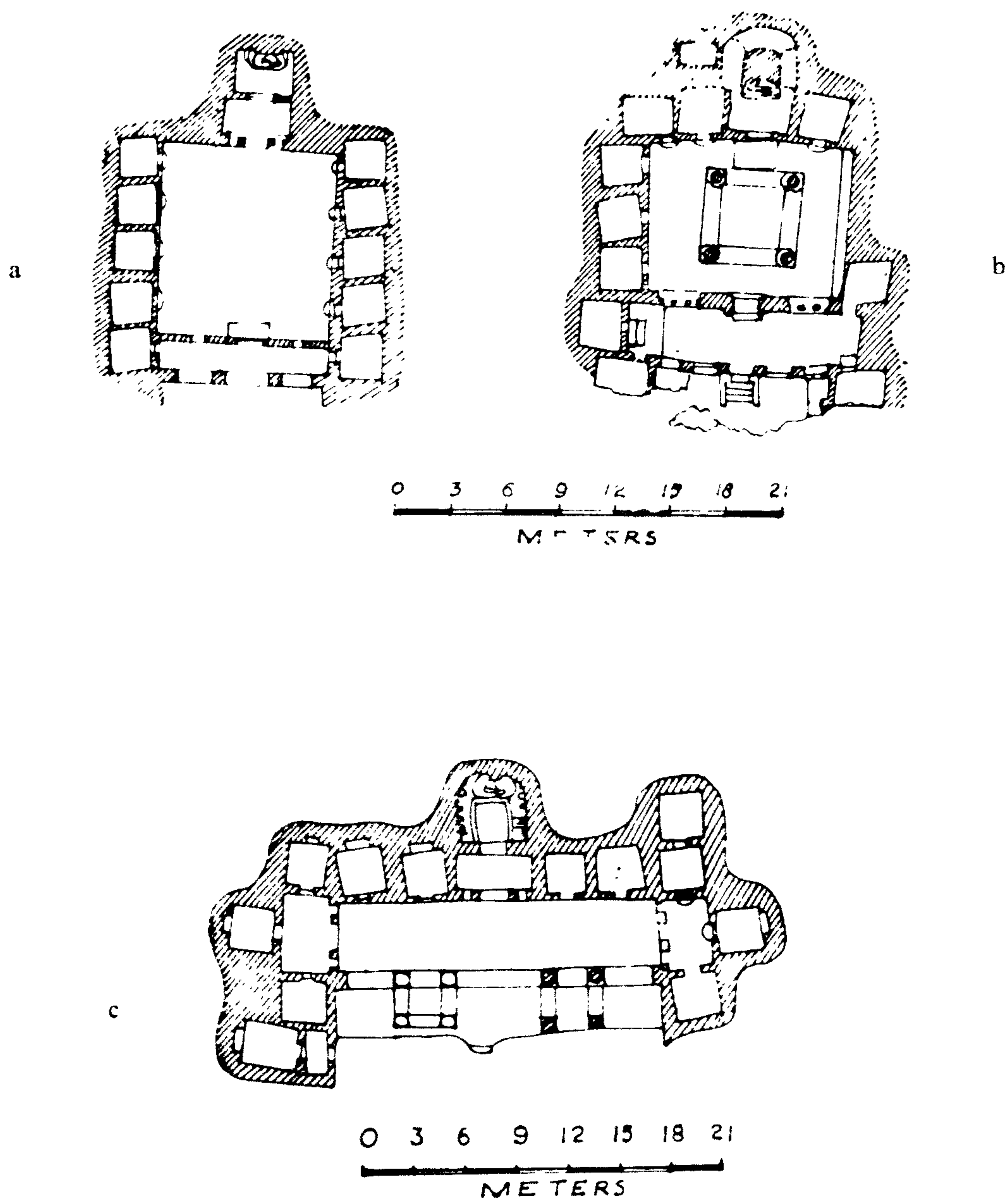


Fig. 22 a. Ajantā—Plan of Cave XV
b Ajantā—Plan of Cave XI.
c Ajantā—Plan of Cave VII

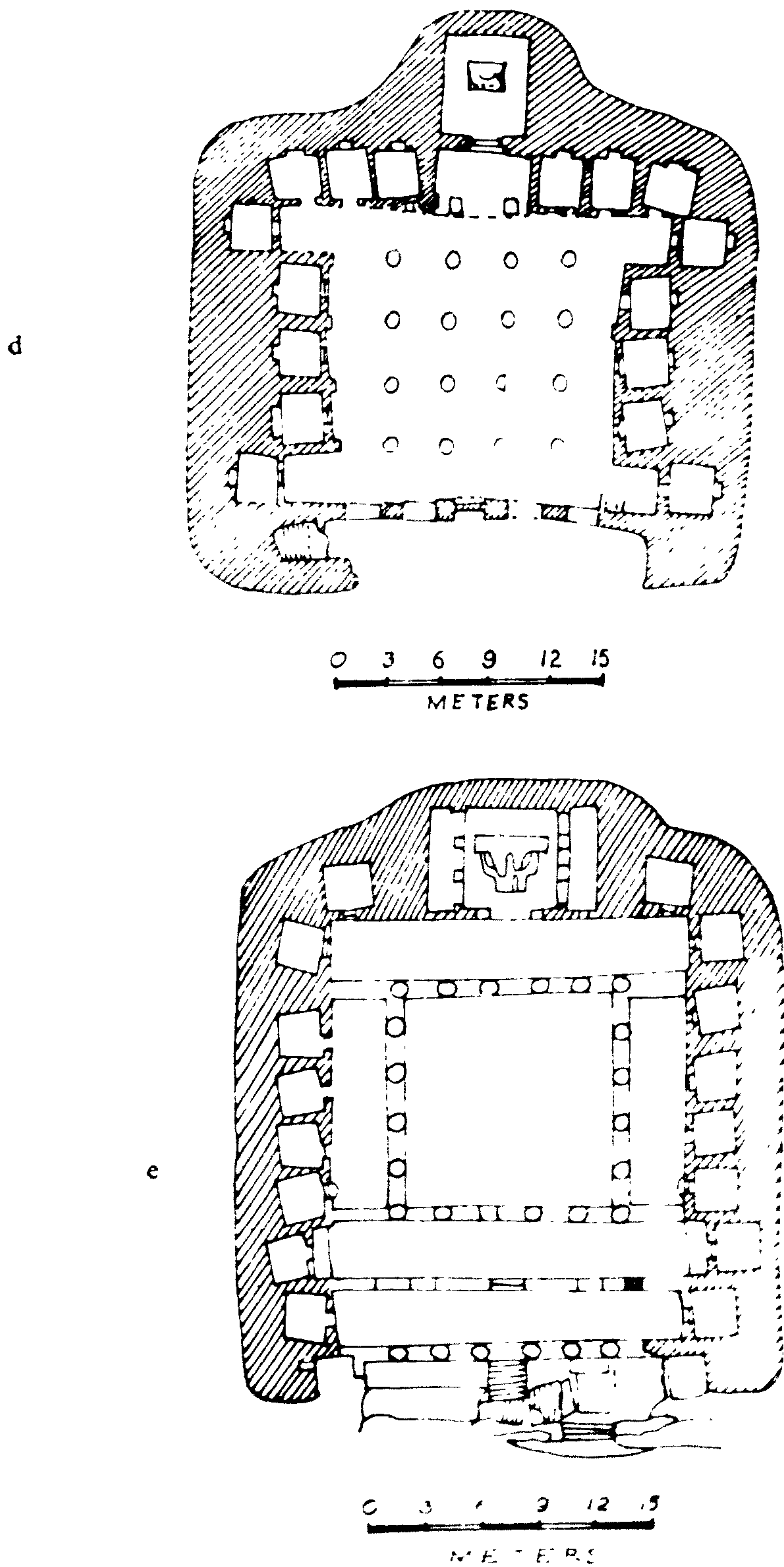


Fig. 22 d. Ajantā. Plan of Cave VI
e. Ajantā. Plan of Cave XVI

The entrance to the *antarāla* consists of an opening having two pillars. They have a square base, an octagonal upper part, a sixteen-sided shaft and a square top. The walls of the *antarāla* are plain. Inside the shrine is an image of *Buddha* who is shown sitting cross legged with soles of the feet upturned (Pl. XXXI b). The halo (*prabhāvalī*) at the back has a scalloped margin reminiscent of the Kuṣāṇa *Buddhas* of Mathura. On either side of the halo is a garland bearing figure. The throne of the *Buddha* has on sides a man fighting with lion, both of them standing on an elephant. The lions supporting the throne very closely resemble those sculptured in the Amarāvatī reliefs.[25]

It thus becomes clear that the cave has many early features and can, therefore, be dated to the early part of fifth century or even earlier. While its layout is similar to those at Mahad, the doorframe, figures on which were undoubtedly carved later, is the result of the influence of the early Gupta temples which were then coming up in Central India. The cave is therefore possibly the earliest in the Mahāyāna series at Ajantā. It is significant that even Burgess thought this cave to be an early excavation in the latest group at Ajantā.[26]

There should be little doubt that this cave represents a further stage in the development of the Buddhist shrine-cum-*vihāra*. Spink has dated this cave A.D. 475-89.[27] But as already observed, it is closely related to the Mahad *chaityas* which belong to the late third or early fourth century. The Ajantā cave XV may, therefore, be placed in the earlier half of the fifth century.

We may then proceed to consider cave XI (Fig. 22 b) which marks the next stage of develepment of the Mahāyāna *vihāras*. It is a most interesting edifice consisting of a pillared verandah joined to the quadrangular hall which, in its turn, contains a small *maṇḍapa* in the centre formed by four pillars. Thus we find the introduction of pillars in the hall for the first time at Ajantā in the Mahāyāna group. There are cells at both the ends of the verandah and on the left wall of the *maṇḍapa* as also in the back wall. But there is no *antarāla* here joining the hall to the shrine. The most interesting feature, however, is the *Buddha* in the shrine which is carved against an unfinished *stūpa*. But the image of the *stūpa* is in the centre and there is no *pradakṣiṇāpatha*. The cave can be dated, on the basis of a painted record, to the latter half of the fifth century.[28] Spink has convincingly shown that there are two distinct phases of work which can be discerned in this cave, and that the paintings belong to the second phase of work.[29] The cave, therefore, can be said to have been excavated in the middle of fifth century.[30]

Cave VII (Fig. 22 c) appears to be an early excavation. It consists of a verandah with cells in side walls and also in the back wall flanking to the shrine. It may be noted that the shrine doorway has *gaṇas* at the base like those in cave XV but also has a lion by the side of the *gaṇa*. A pillared *antarāla* connects the shrine to the verandah. The pillars are simple with plain hexagonal shafts and *āmalaka* capitals (Pl. XXXII a). Yazdani thinks that the plan of this cave was changed several times according to the requirements of the monastic order which was established there.[31] He assigns the cave to late sixth century[32] while Spink has dated it to 468-90, thus making it an early excavation of the Mahāyāna series.[33]

The confusion in the disposition of pillars in the lower storey of cave VI shows that it possibly represents a transitional phase (Fig. 22 d). Besides the usual cells in the side and the back walls, the shrine joined to the hall by an *antarāla*, has been provided with a *pradakṣiṇāpatha*. The shrine door has a *toraṇa* which is carved with a male figure sitting on a *nāga* and having a canopy of five snake hoods. The female figures standing on *makara* on the door jambs are characterised by freedom of movement and sensuous curves of the body which recall to the mind those in the Ikṣvāku sculptures from Nagarjunakonda. The *toraṇa* is supported by a *gaṇa* on either side. The dainty floral scrolls are also simple in design and are far removed from the complicated arabesque which is found in some of the later Mahāyāna caves at Ajantā. The entrance doorway is also simple and was once decorated with loose sculptures (Pl. XXXII b). The pillars of the door have a *ghaṭa* shaped bases supported by *gaṇas*, both in the Nasik tradition. All these features are betoken of an early date of this cave in the Mahāyāna series. This cave, together with cave VII, may therefore be placed in the third quarter of fifth century. Yazdani[34] however, thinks that they are both a century later than caves I and VI while Burgess takes them to be a century earlier.[35]

The plan of the Mahāyāna shrine-cum-*vīhara* is completely standardized in the last quarter of fifth century during the reign of Hariseṇa. This is exemplified by cave XVI which has been securely dated on

the basis of the long epigraph in the cave (Fig. 22 e). The noteworthy feature of this cave is the absence of the *antārala* joining the hall and the shrine. This has led scholars to take it to be the beginning of the Mahāyāna architecture at Ajantā.[36] It may, however, be emphasized that the earliest evidence of antechamber (*antarāla*) is furnished by Kuda caves I and VI. In fact the absence of pillars should be taken as an important criterion for determining the chronology of the Mahāyāna caves. This only shows that Cave XVI which provides a fixed datum for the Ajantā chronology represents the culmination of the process of standardization of the Mahāyāna *vihāras*; it only marks the beginning of the final phase of activity in the Mahāyāna group of Ajantā.

The foregoing analysis of the architectural evidence of the late Hīnayāna and early Mahāyāna caves in Western India shows that the origin of the typical Mahāyāna *vihāra* can ultimately be traced in the Hīnayāna *chaitya* IX at Ajantā itself. The change in the plan of the *chaitya* may have been caused by the ritualistic needs of the community of monks. The idea of providing cells for the residence of monks in the *chaitya-gṛha* is first met with at Kuda and is carried to a logical conclusion at Ajantā through various stages of development which are witnessed at Shelarwadi and Mahad. All these late Hīnayāna caves are hanging, as it were, in a chronological vaccum. But they can be assigned, on the basis of stylistic and palaeographical evidence, to third or even early fourth century. The further development of the harmonious combination of a shrine and a *vihāra* is witnessed, as discussed in the present study, at Ajantā.

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XXII

*The recovery of a 'lost Architectural style': Some roof forms from the Ajanta Murals and related material**

SENAKE BANDARANAYAKE

The wealth of architectural remains in India and Pakistan which date from the period prior to the development of the 'mediaeval' *śikhara* temple consists largely of the ruined substructures and walls of ancient cities and Buddhist monastic complexes. As a consequence, our sense of the original style and character of this early architecture is more or less limited to the internal and external plans of buildings—their horizontal disposition, so to say—as well as the building technology and use of materials displayed in their surviving basements and walls. Beyond this, attempts at conjecturing the original form and appearance of this architecture in its totality have been based on three or four sources and methods which may be summarised as follows :

(*a*) the interpretation of the existing structural remains, with some reference to comparative material, especially the forms described in (*b*) and (*c*) below,

(*b*) the conjectural reconstruction of the timber prototypes of rock-cut monuments,

(*c*) the reconstruction of the buildings represented in the early Buddhist reliefs,

(*d*) the description of early building forms and traditions using literary material as a principal source.

Reconstruction of this type have been attempted by a number of scholars including Ananda Coomaraswamy and Percy Brown and, more recently, Jeannine Auboyer, J.F. Enault and Amita Ray[1], who have used one or more of these methods.

Invariably, the roof types associated with these early building traditions have been of two basic types : the *flat* roof of the Indus valley cities[2] and of some later, pre-*śikhara* temple forms[3], and the familiar *curvilinear* shape of the wagon roof, the apsidal vault and the dome of the early historical or 'Buddhist' period. It is this latter form that dominates the building traditions of the reliefs and the rock-cut monuments. Little serious attention has been given so far to a third type of roof, the *rectilinear pent* roof, which may have been much more prevalent than we have hitherto suspected and which must have produced its own distinctive and expressive forms from an early period. Even today, the *rectilinear pent* roof and the *flat* roof are the two major roof forms prevailing in the living architectural traditions of the South Asian region, especially in the basic architecture of the village[4]—unlike the much more restricted use of the *curvilinear* form. The archaeological implications of the historical continuity of such organic building traditions have never been posed, while such evidence as exists in terms of material remains, pictorial or sculptural representations, or even literary descriptions, in which the presence of rectilinear pent roofs in ancient architecture is documented, has often gone unrecognized. Foucher was one of the first to notice the existence of such roof forms in Gandhāra, where he speaks of the *vihāra a toit anguleux* in counterposition to the *vihāra a toit courbe*.[5] In the archaeological record, this phenomenon is best known from the temples of Kāśmīr[6]. In India, such 'angular' roofs are the most distinctive aspect of the formal architecture of the regional traditions of Kerala, South Kannada and Goa, as well as in the Himālayan foothills, while in the neighbouring countries of Nepal and Śrī Laṅkā the pitched

*Drawings by C. Anjalendran.

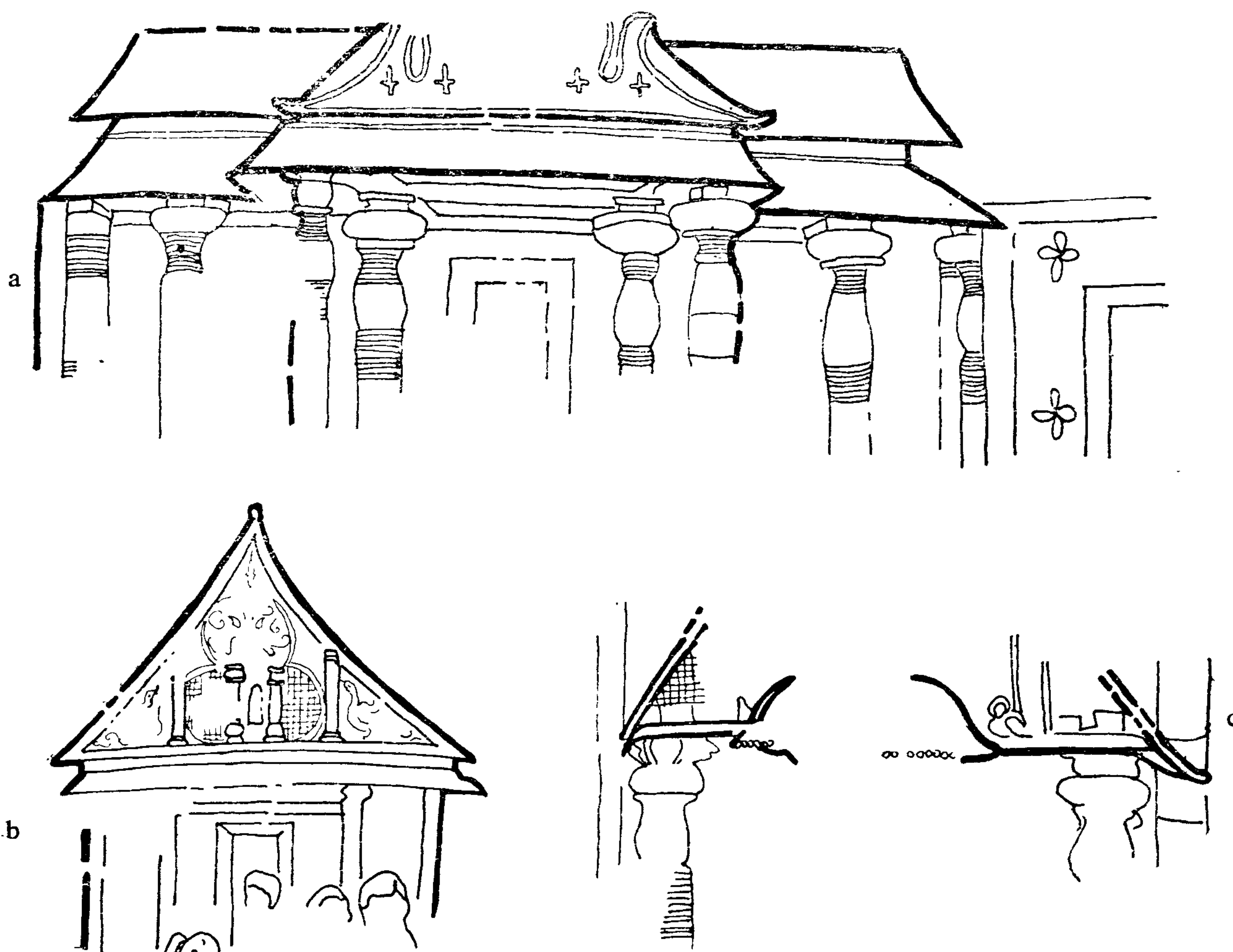


Fig. 23. a, b, c. Wall Painting, Ajantā, Vihāra No. 16.

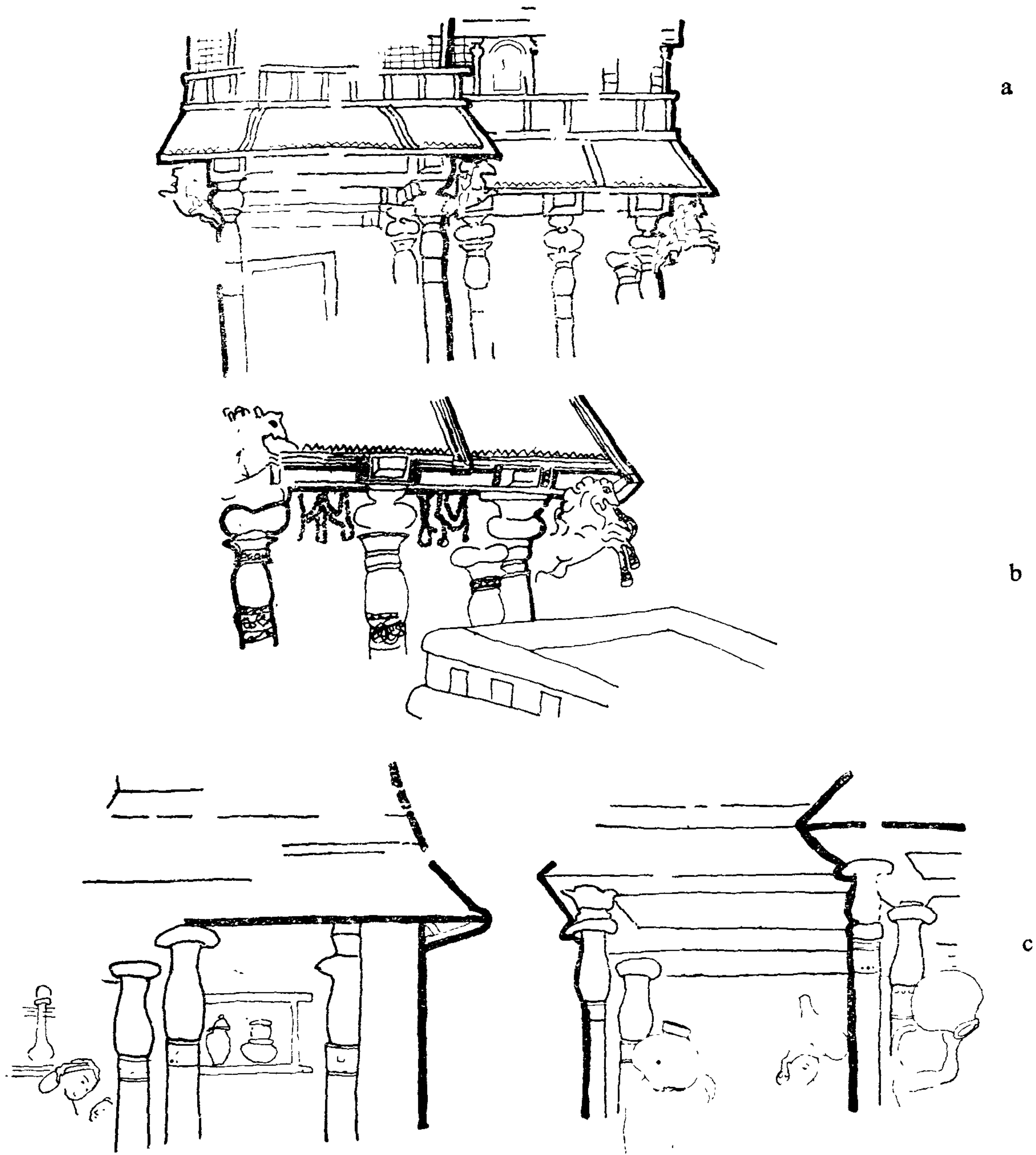


Fig. 24. a. Wall Painting, Ajantā, Vihāra No. 1.
b. Detail of a (after Golouboew).
c. Wall Painting, Ajantā, Vihāra No. 1.

Fig. 26. a, b, c. Wall Painting, Ajantā, Vihāra No. 2.
d. Wall Painting, Ajantā, Vihāra No. 1.

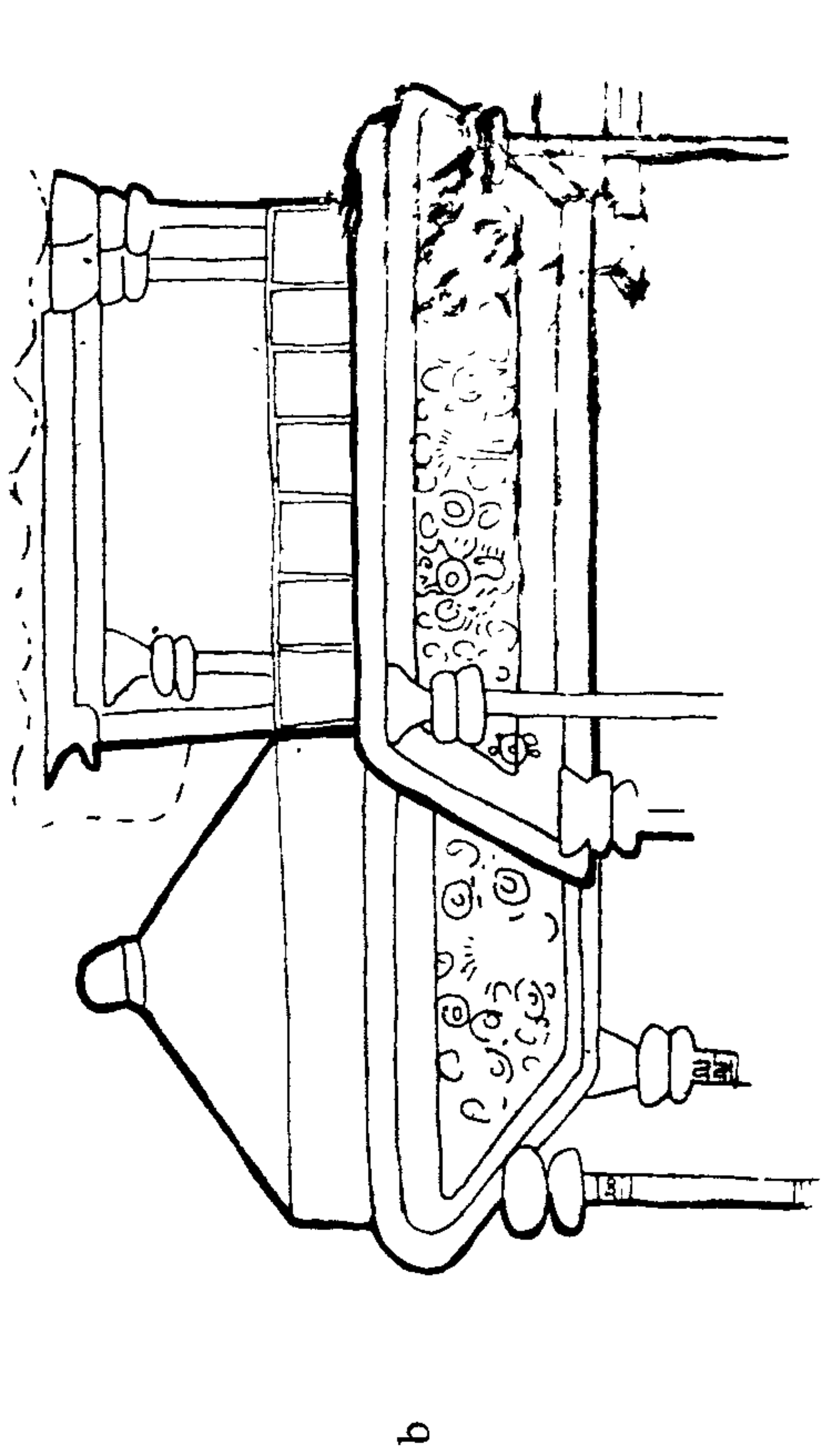


Fig. 25. a, b. Wall Painting, Ajantā, Vihāra No. 1.

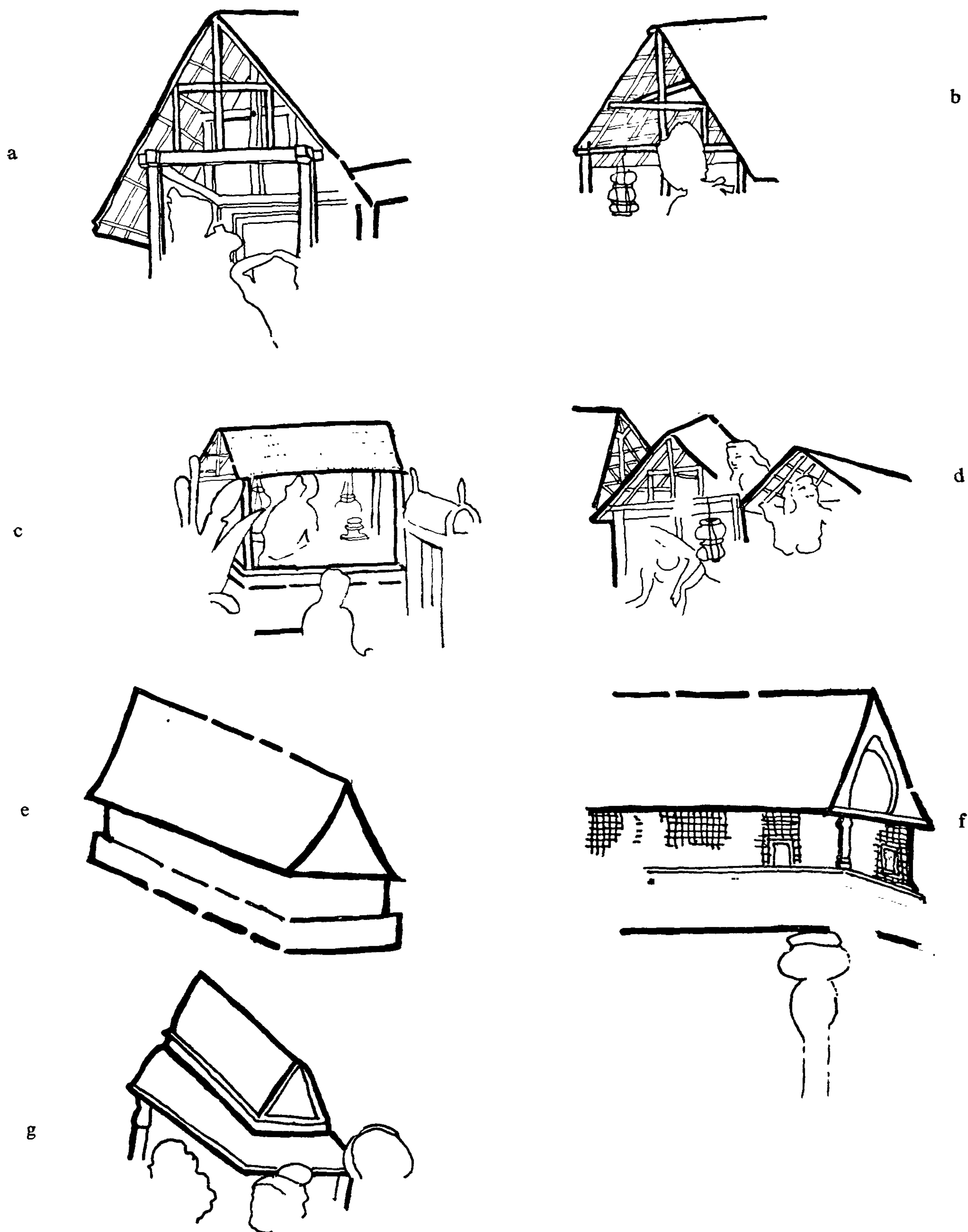


Fig. 27. a, b. Wall Painting, Ajantā, Vihāra No. 17.
c. Wall Painting, Ajantā, Vihāra No. 1.
d, e. Wall Painting, Ajantā, Vihāra No. 17.
f. Wall Painting, Ajantā, Vihāra No. 16.
g. Wall Painting, Ajantā, Vihāra No. 1.

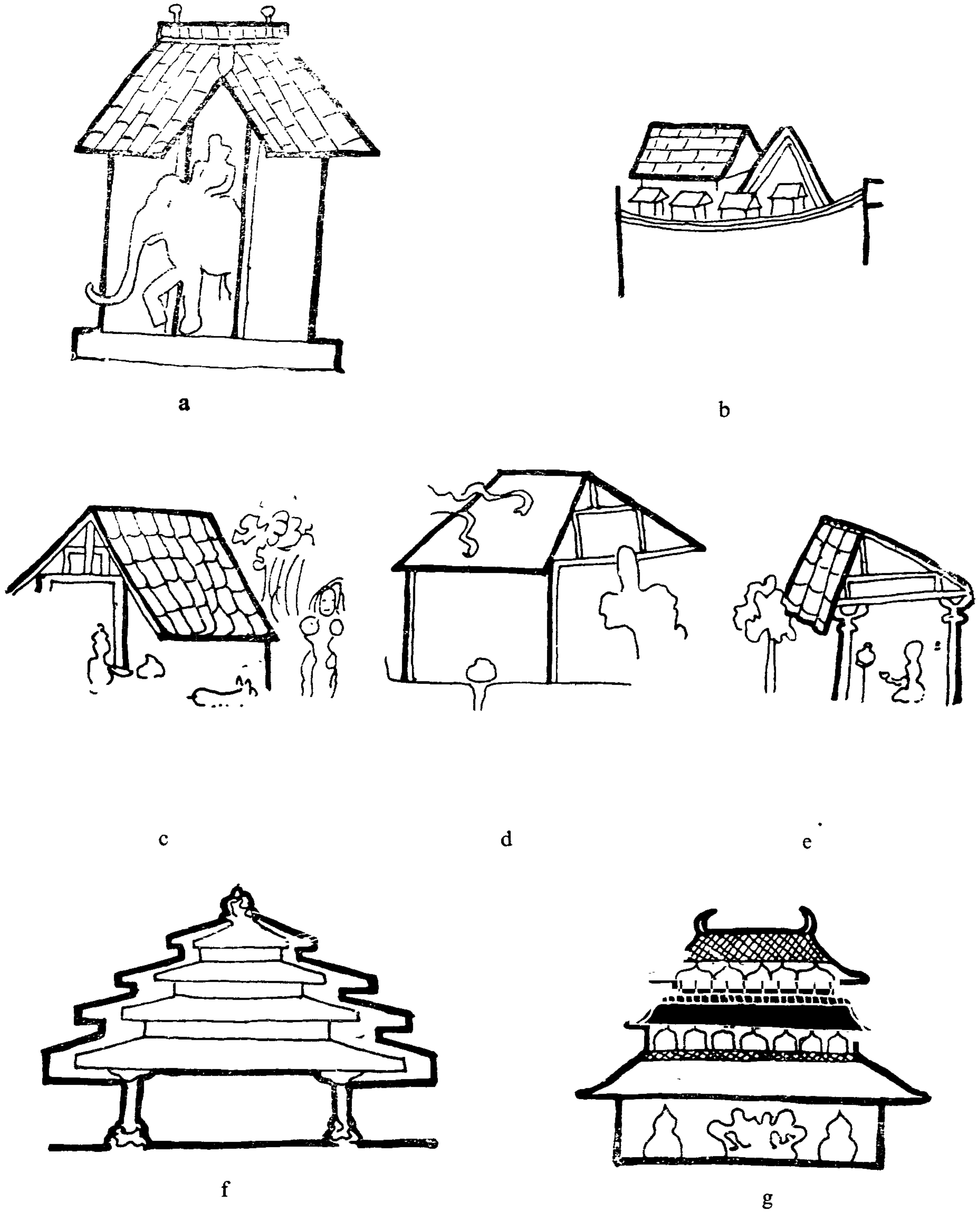


Fig. 28. a. Relief Carving, Sāñchī Stupa No. 2.
b. Relief Carving, Mathura (after Ray).
c. Relief Carving, Kailāśanātha, Ellora (author's sketch).
d. Relief Carving, Virupāksa Temple, Pattadakal (author's sketch).
e. Relief Carving, Mallikārjuna Temple, Pattadakal (author's sketch).
f. Relief Carving, herostone (author's sketch from Photograph, Kannada Research Institute, Karnataka University, Dharwar).
g. Painting on Ceiling, Virupākṣa Temple, Hampi (author's sketch).

roof constitutes the basis of their respective national architectural styles[7]. Brief but conflicting views have been expressed regarding the original roof form of the Nāgārjunikoṇḍa monasteries : Longhurst was of the opinion that there were rectilinear sloping roofs above the columns, while Ramachandran held the view that they had flat roofs of 'stone coursed with brick on top'.[8]

It is precisely the existence of such rectilinear sloping roofs, especially in Gupta and late Gupta times, that we find in a number of buildings depicted in the Ajantā murals. In fact, the paintings contain a wealth of architectural information, which—as far as I know—has received little attention hitherto and which deserves systematic study. A greater part of this consists of palace scenes and courtly environments, with occasional and often fragmentary views of single buildings or building groups, all rendered in the context of the shifting perspective characteristic of the Ajantā artists. It is rarely, therefore, that a total structural form emerges and even less so is it possible to obtain a coherent image of a complex or cluster of buildings. What we usually find are representations of internal architectural spaces, forming, as it were, a stage within which the figure compositions are disposed and the pictorial narrative unfolds. We also have street sequences, balconies, gateways, the corners and roof eaves of buildings and pavilions, as well as structures with barrel-vaulted roofs, all forming part of the complex 'architectural scenery' of the paintings. If the architectural information we can extract from all this is sometimes impressionistic and fragmentary, it is at the same time highly evocative of a particular architectural milieu, in a way that the surviving structural remains and even the rock-cut monuments are not. Therefore, it provides insights into certain aspects of pre-mediaeval Indian architecture that we cannot obtain elsewhere, particularly with regard to the roof forms prevailing at the time.

As far as these roof forms are concerned, several significant observations can be made from the evidence of the murals. They can be listed as follows :

(*a*) the existence of at least one elaborate pent-roofed structure of a type familiar in the architectural traditions of East and Southeast Asia, as well as in the South Asian countries and the Indian regional traditions mentioned above, but rarely associated with the classic Indian tradition (Fig. 23a; *see* also Figs. 23 b and c).

(*b*) the presence of a large number of buildings, usually of the rectangular, elongated hall or house type, with single or multiple and sometimes hipped roofs, indicating that this structural type and roof shape was as common a feature of that time as it is in Indian domestic architecture today (Figs. 27 a-g).

(*c*) the extensive use of pent-roofed elements in the construction of pavilions, balconies, gateways, etc., especially in the context of court scenes and urban sequences (Figs. 24 a-c; 25 a-b, and 26 a-d).

(*d*) the coexistence of such pent roofs with the more familiar wagon roof forms of early Indian architecture, as well as the combination of rectilinear (*i.e.* pent) and curvilinear elements in the depiction of architectural details, roof edges, mouldings and eaves (Figs. 24 a-b, 25 a-b; 26 a and d).

(*e*) the extensive use of timber frame construction, especially the use of beams, purlins, rafters, posts, columns, capitals and brackets and the presence of deeply projecting eaves and open gable ends, almost all of which is to be found in pent rather than curvilinear roof structures.

The coexistence of curvilinear and rectilinear roof forms poses a significant technical problem in the study of early Indian architecture.[9] The curved beams and vaulted ceilings of the rock-cut *caityaśālās* and the wagon-roofed structures depicted in the reliefs certainly testify to the existence of such roof forms in the structural architecture of the time. This curvilinear shape however, would normally preclude the use of terracotta tiles as roofing material, leaving open the possibility of a thatched, a purely timbered or a special type of mud masonry roof. No evidence of brick or stone masonry vaults or domes on any substantial scale appears in the archaeological record, except in the Gandhāran sites. At the same time, extensive tile remains at such monuments as the circular temple at Bairāt[10] and the apsidal Temple 18 at Sāñcī[11] indicate that many major monuments of the early period must have had tiled roofs, more likely of a pent, conical or semi-conical rather than a curved shape. In this event, the living architecture of the western Indian coastal region or the Himalayan foothills, as well as the architectural traditions of Kāśmīr, Nepal and Śrī Laṅkā would provide useful comparative material for

archaeologists and architectural historians in the interpretation of such evidence as the tile remains[12] and the pictorial representations from the Ajantā murals.

Similar architectural styles, in which the pent roof forms the most expressive design element, can be seen in a relatively small number of sculptural reliefs and pictorial representations, which are scattered widely in space and time and which rarely occupy positions of any importance. Nevertheless, they are complementary to the material that we find in the Ajantā paintings. The earliest of these representations are from the early Buddhist reliefs. They include the pavilion or gateway, with elephant and rider, depicted in a medallion from the railing of *stūpa* No. 2 at Sāñcī[13] and a few more substantial buildings and urban clusters from the Bhārhut and Mathurā reliefs[14]. Of a somewhat later date, probably from about the 8th century, is the representation of a small shrine with sharply pitched roofs depicted in relief on a wall at the entrance to the cemetery of Sultan Zain-ul-'Abidin in Śrīnagar[15]. This clearly reflects the style of the Kāśmīri architecture of the period, well represented in surviving structural monuments. Similarly, in Western India, we can see architectural designs showing elaborate pent-roofed towers (Fig. 28 f) or a mixture of curvilinear and rectilinear roofs, depicted in hero-stone reliefs dating from a period between the 12th and 15th century[16]. As in Kāśmīr, this obviously reflects some of the prevailing pent-roofed traditions of the western maritime region—Kerala, Mudabidri, Goa, etc.—as well as earlier structural examples of stone temples in which at least some part of the roof was composed of stone slabs arranged in a sloping or pitched roof style[17]. At a very different level, simple tile-roofed buildings or huts can also be seen occasionally in narrative or decorative relief carvings from classical *śikhara* temples such as the Virupākṣa and Mallikārjuna temples at Paṭṭadakal and also in the Kailāśanātha at Ellorā (Fig. 28 c, d, e). Quite clearly, these represent architecture at its simplest and humblest—perhaps suggesting the status, consciously or unconsciously, attributed to pent-roofed buildings in the *śikhara* temple builders grand scale of values. More elaborate and ambitious buildings however, of a pent-roofed type are depicted in paintings on the ceiling of the *maṇḍapa* in the Virupākṣa temple at Hampi[18] (Fig. 28 g).

The examples listed here of pictorial and sculptural evidence of pitched-roof buildings are by no means exhaustive but merely represent those which the present writer has encountered in the field and in published material. They indicate that a systematic search may reveal a much larger representation in mainland South Asia of an architectural mode that is well established in East and Southeast Asia as well as in Nepal, Śrī Laṅkā and elsewhere. The existence of such forms as early as the 5th or 6th century in the Ajantā paintings and the use of terracotta tiles as a roofing medium in important monuments of the Maurya and Śuṅga period suggests that the pent roof may have been as important in the Indian architectural tradition of the pre-mediaeval era as the flat or curvilinear roofs usually associated with this epoch. The archaeological implications of this involve essentially a further search for the remains of such elements as tiles, nails and fragments of woodwork indicative of timber-and-tile roof forms. This evidence has already been noticed at a few early sites and is apparently more widespread than we realise[19] although its significance for the reconstruction of the early buildings and architectural styles at these sites has scarcely received the attention of the excavators.

The prevalence of *flat*, *curvilinear* or *pent* roofs depends on a number of factors such as ecology and local traditions, social and economic determinants and materials and technology. The ideological and social function of sacred or courtly architecture requires not merely differentiation of size, materials and decorative details between the buildings of the elite and those of the rest of society, but also specific forms of aggrandisement and elaboration such as the vertical extension of the roof and the superstructure. This extension or multiplication on the vertical plane—often accompanied by horizontal expansion as well—was the most perfect mode of gods and the men who inhabited and controlled such buildings. Thus, each of the three roof types, the flat, the curvilinear and the pent roof, develops its own distinctive method of vertical extension : the flat roof in the form of a stepped, pyramidal tower or in constituting a base for a *śikhara*; the curvilinear roof in the shape of an elevated dome or apse or barrel vault; and the pent roof in a series of superimposed roofs or 'storeys', one rising above the other, as in the tower-temples of Nepal or the Chinese or Japanese timber *pagodas*. Whether the Indian tradition in its central line of development

had produced a 'high' architecture based on the pent roof, in the period before the emergence of the *śikhara* temple, must remain an open question. What is certain is that the tiled, pent roof was one of the important aspects of Indian architectural style in the pre-mediaeval era.

The recovery of this 'lost Architectural style' from evidence such as that of the Ajantā murals brings about important historical correspondences between the architecture of South, Southeast and East Asia. Such reconstruction should not become a basis for diffusionist explanations—like those of Goetz, who was one of the first to suggest that Gupta architecture may have been of a pent-roof type[20]—but should rather serve as an enrichment of our understanding of the unity and diversity of cultural traditions across this entire region[21].

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15. Cole, H.H., *Illustrations of Ancient Buildings in Kashmir*, Archaeological Survey of India, Kashmir, London, 1869, pl. 5 '68. This motif is not unique. Other examples may be seen elsewhere in Kāśmīri architecture; *See* Kaul, M., *Kashmir, Hindu, Buddhist and Muslim Architecture*, New Delhi, 1971, pls. 28, 31, 37, 38.
16. Several of these were observed in photographs exhibited at the Kannada Research Institute of the Karnatak University, Dharwar (especially, No. 8, a 16th century example from Bhaṭkal, North Kannada District; No. 38, 12th century, Hāngal, Dharwar District; and three examples with purely rectilinear roofs from the collection of the Kholapur Museum). The exhibition was held in connection with a seminar on memorial stones in 1974.
17. One of the clearest examples of this is the *sabhāmāṇḍapam* of the Mahādev temple at Tamde-Surle, attributed to the 12th century. This seems to be an early version of the typical Goan temples of the 18th and 19th centuries, where the sanctuary alone has a *śikhara* over it, while the rest of the shrine has a pitched roof of timber and tiles. The pent roofs

of the Tamde-Surle temple are of heavy stone slabs. Other examples of sloping roofs made of stone slabs, in a substantial or vestigial form, can be seen in the pre-Solāṅki temples of Kathiawad, in early Cālukya shrines at Aihole and Bādāmī, as well as much further afield in Orissa and Kumaon (see Bandaranayake, *Op. cit.*, 1974, pp. 372 ff.). Structures with pent roofs of stone can also be seen in Moghul architecture, as in the fort at Agra and at Fatehpur-Sikri. A pure version of this pent-roofed type is the small house next to the Shabistan-i-Iqbal or the so-called Jodh Bai's palace.

18. Although there is no necessary connection between them, the buildings seen in the Hampi paintings can be compared with the even more elaborate *prāsādas* and *dēvavimānas* represented in wall-paintings from Buddhist image-houses in Śrī Laṅkā, such as those in the rock-temple at Dambulla, which date from the 17th or 18th century. Architectural representations of this type in Śrī Laṅkān Buddhist art go back at least to the 12th or 13th century at Polonnaruva. Interestingly, these Śrī Laṅkān paintings also show that combination of rectilinear and curvilinear forms that we have seen at Ajantā and in the hero-stone reliefs of Western India. I have argued elsewhere that at least in the Śrī Laṅkān context this represents more a stylistic conceit than an actual representation of existing architectural realities (Bandaranayake, *Ibid.*, pp. 367-371, figs. 159-162). In India, however, the coexistence of the two styles is an authentic reflection of existing structural forms.

19. S. Nagaraju, personal communication, January 1975. The question of tile remains and other archaeological material indicating the existence of pent-roofed structures at early Buddhist sites featured in a brief but highly informative discussion I had with Mr. Nagaraju, Deputy Editor of the Kannada Encyclopaedia, at the Institute of Kannada Studies in Mysore. Mr. Nagaraju not only drew my attention to the fact that extensive tile remains *had* been found at many sites, but we also discussed the question of the different architectural-ecological zones in India where the domestic rural architecture varied between *flat* roofs and *pent* roofs. The problem of these two basic roof forms, their distribution and their relationship to formal architecture had been one of my pre-occupations for many years, when a trans-Asian journey in 1974-75 enabled me to observe how one or the other type predominated in large areas of Western and Southern Asia. In India, especially, the 'zonal' variations and transitions occurred fairly frequently and there were many transitional areas where the two types were intermingled (unlike in the countries to the west where the flat roof was the dominant form). Mr. Nagaraju had made a study of the Indian pattern and was, I understood, preparing a map of these zones. (See also : Mitra, Ashok, "Report on House Types and village settlements", *Census of India*, 1961, Vol. I, Part IV—A(III), 1961; Ray, Amita, *op cit.*, pp. 15-19; Vaze, K.S., A study of Building construction in Ancient Indian Manuscripts, *Bombay Engineering Congress, 1923, Paper No. LXXXV*, 1923.

20. Goetz, H., "The Beginning of Mediaeval Art in Kashmir", *Journal of the University of Bombay*, 21(2), 1952, pp. 63 ff., esp. pp. 79-80, 93-94 (reprinted in, Goetz, H., *Studies in the History and Art of Kashmir and the Indian Himalaya*, Wiesbaden, 1969, pp. 37-67).

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XXIII

Cave 3 at Nasik : A Restudy

S. NAGARAJU

Cave 3 at Nasik,[1] called as the 'Queen's cave' in a contemporary inscription and better known to historians as Gautamīputra's cave, is one of the largest and finely executed rock-monuments of Western India. This occupies a place of special importance in the study of early rock-cut monuments of the region, due to the fact that this is one of the few caves endowed with datable foundation inscriptions. Thus this forms an important chronologically fixed architectural document with reference to which comparisons could be made for building a style-sequence of early rock-cut monuments.

An apparent discrepancy between the epigraphical and architectural data pertaining to this monument has been a lingering problem. This cave is a *vihāra*, or, to be exact, a *leṇa*,[2] of the usual *chatuśśālā* type-consisting of a large hall surrounded by cells and a verandah in its front—and for a casual observer looks to be a monument decently designed and executed at a single stretch.[3] But the inscriptions in the cave reveal that there are at least two stages of work in its making.

There are four inscriptions in this cave. The first two inscriptions are carved on the east or left end wall of the verandah and these belong to the time of Gautamīputra Sātakarṇi (*C.* A.D. 106-130). The other two are on the long back wall of the same verandah and belong to the time of Gautamīputra's son and successor Vaśiṣṭhīputra Puḷumāyi (*C.* A.D. 130-158). The first inscription,[4] dated in the 18th regnal year of Gautamīputra simply states that some lands in the village Aparakakhaḍi, which were formerly being enjoyed by Uṣavadatta, were donated for the benefit of Tekirāsi monks,[5] by the orders of king Gautamīputra who was then stationed at the victorious war-camp at Benākaṭa. The second inscription,[6] which is written in continuation of the above and dated in the 24th regnal year of the same king, states that the lands formerly granted in the village Kakhaḍi, 'to the monks living in the cave which is 'our' donation', having fallen fallow due to the desertion of that village, 100 *nivartanas* of land within the boundary of the town (Govardhana, *i.e.*, Nasik) was given instead of the previous grant. The grant was made at the instance of the king's mother. The third record[7] is the famous inscription of Gautamīputra's mother Balaśrī, caused about two decades later than the previous inscription. The occassion of carving this inscription has been utilized by Balaśrī to provide a eulogistic account of the personality and achievements of her son Gautamīputra, who was probably dead by then. The inscription further records that Balaśrī, mother of such a great king, caused this excellent *leṇa* to be made and donated it to the *saṁgha* of Bhadāyanīyas, on the 13th day of the 2nd fortnight of *Grīṣma* in the 19th regnal year of her grandson Vaśiṣṭhīputra Puḷumāyi. Again at her wish, the king donated on that occassion (the revenues of) a nearby village for adorning the cave with paintings.[8] The fourth inscription[9] written in continuation of the above is dated in the 22nd regnal year of Vaśiṣṭhīputra Puḷumāyi. It records that in lieu of the village Sudasana granted earlier to the Bhadāyanīya monks hailing from Dhanakaṭa and residing in the 'Queen's cave', another village by name Samalipada was granted to them free of all imposts.

Keeping various other details for further consideration, the question of authorship and time of making of the cave may be taken first. While the second inscription specifically indicates that monks were already living in that cave in the 24th regnal year of Gautamīputra Sātakarṇi, the third inscription

states that the cave was made and donated by Gautamī Balaśrī in the 19th regnal year of Vaśiṣṭhīputra Puḷumāyi. So, during whose reign was this cave made ? Various scholars have offered interesting explanations, all postulating at least two stages in its making.

1. The cutting of the cave was started by Gautamīputra Sātakarṇi, but was left unfinished. After its completion by Gautamīputra's mother Balaśrī in the reign of Puḷumāyi, the dedicatory inscription was cut.[10]

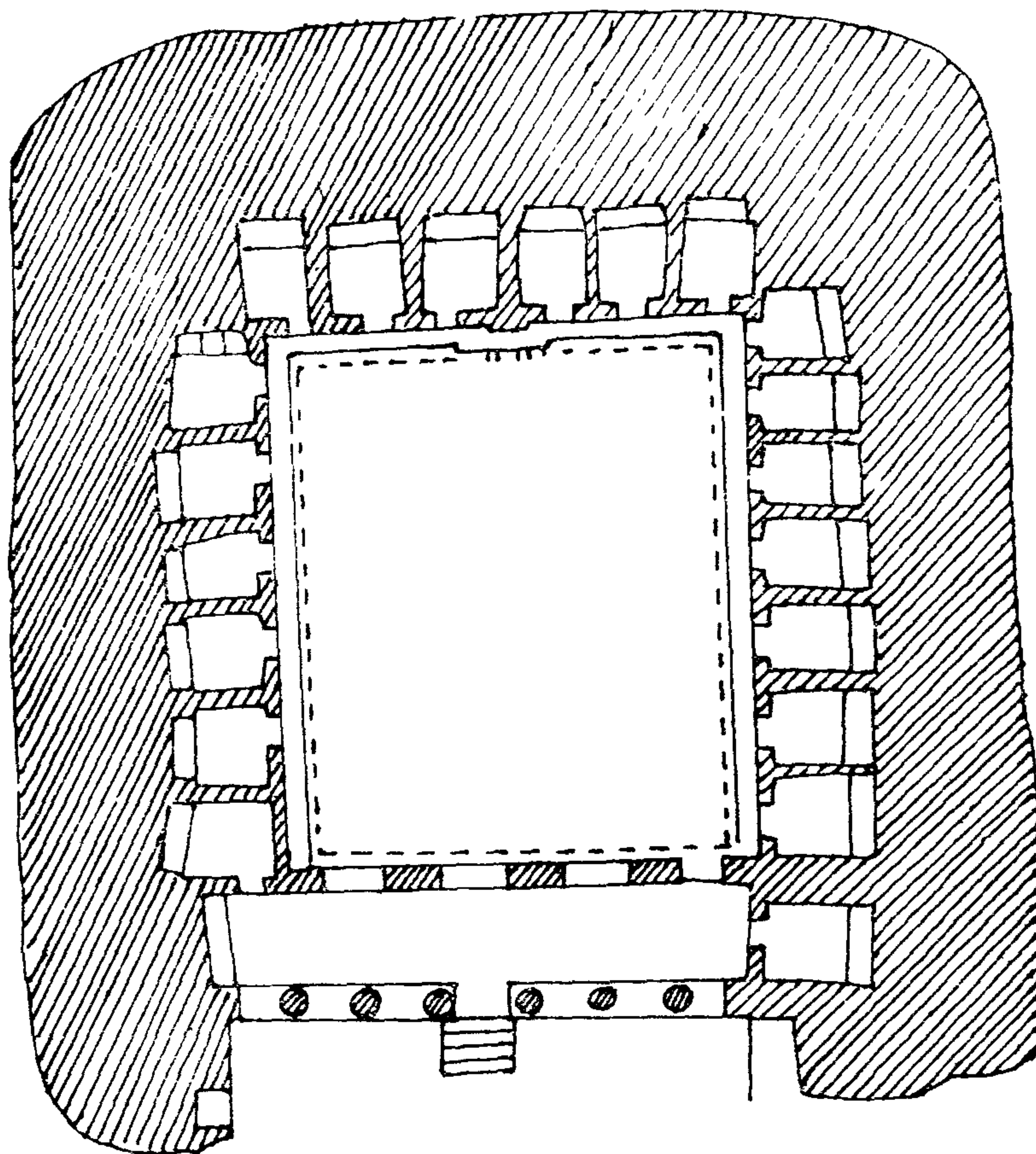


Fig. 29. Nasik Cave 3—Plan.

2. Gautamīputra's grant refers to the cell to left which opens to the verandah (see Fig. 29). The area in front of the cell which now forms part of the verandah was originally a hall in front of the cell, which was later demolished while Gautamī Balaśrī enlarged the cave and redonated it.[11]

3. Originally a *leṇa* had been finished and donated by Gautamīputra Sātakarṇi here. It consisted of the present verandah and four cells opening into that, *i.e.*, the cell in the right side wall, the cell in the back wall to the left and two cells behind the present doorways. This was later remodelled into the present form during the reign of Puḷumāyi and a fresh dedicatory inscription of king's grandmother Balaśrī was engraved.[12]

The first explanation does not say anything about the stage in which Gautamīputra left the cave unfinished nor does it take into account the statement of the second inscription that monks were already living in that cave in the 24th regnal year of Gautamīputra. The second explanation is very difficult to accept as this supposes the excavation of only a small single celled cave during the time of Gautamīputra[13]. Granting it to be so somehow, as a scholar has already pointed out, one would except the dedicatory inscription to be caused in front of the verandah of this cave than on the walls of the dark hall[14]. Further, it is difficult to imagine where the entrance to this cave could have been located; the

rock-cut backed-bench in front of the cell under consideration, where the entrance could have been located, is about a metre higher than the present floor level of the verandah and the cell. If the original floor level was at this higher level leaving the rock below to allow the cutting of the backad-bench, the cell doorway would have been less than a metre high. The whole thing looks absurd and has to be rejected. The third explanation too requires reconsideration. If the original intention was to have only a simple lena of four cells, there would have been no necessity for making such a huge verandah and such extensive carving as is seen there ? The conjectural plan of the cave that had been finished at the time of Gautamīputra's 24th year[15], shows how much waste of money and labour would have been there by leaving out much space between the cells. There was no need for this prodigal expenditure on this, that too to result in a haphazardly made monument. Further, we may also take note of the fact that the central doorway leading into the hall is extensively decorated with sculptured *śākhās* on the sides and *toraṇa* above (Pl. XXXIII a and c). It will be difficult to explain the existence of such exquisite decoration before an ordinary monk's cell. This decorative work can not be considered as part of the later work too, because the carving of these is in high relief, projecting to about 10 cms to front from the present wall surface; if the original wall surface was that much thick throughout, then all that must have been chiselled backwards, in which case there must have been that much of blank-space between the back wall and the inscribed area on the east wall having Gautamīputra's inscription. But the lines of that inscription are almost touching the backwall. These considerations demand and acceptance of the fact that the whole verandah and at least the central doorway were in existence at the time of the carving of Gautamīputra's inscription of the 24th year, and there may have been a few cells also as that inscription mentions that monks were living in that cave.

A detailed examination of the plan and other features of the cave facilitates a better insight into the problem. A clue appears to be provided by a proper explanation of the relevancy of the elaborately carved doorway in that position. It may be noted that it is not ordinarily the practice in early Western Indian rock-cut tradition to decorate the doorways of monk's cells. There are, however, a few exceptions, as in cave 19 at Nasik itself,[16] the 'new *vihrāra*' at Bhāja[17], Kondane cave-2[18], cave 45-46 in Bhutaling group on Manmodi at Junnar[19] etc. But in all these instances these decorations are of a simple type consisting of one or two sunken or raised *śākhās* and the *chaitya* arch above, and such decorations are uniformly made for all the cells, and never for one cell alone in a group.[20] The decorations on the present doorway is of a significant type. It has the *toraṇa* design, simulating the free standing *toraṇas* as at Sanchi, leading into an enclosure housing a holy object. The figure of a *stūpa* on the lintel and the *yakṣas* flanking the doorway are items reminding of the *lalāṭabiṁbas* and *dvārapālas* of later tradition and these are seen in the contemporary context on the facade of *Chetiyagharas*, as in the *chaitya* hall 18 at Nasik itself[21] and in the Bhūtleṇa *chaitya* hall on the Manmodi hill at Junnar[22]. So, it appears that this doorway too may have been intended to serve as an entrance leading towards a holy object. That object happens to be a beautiful *stūpa* which is cut in relief inside the hall in the centre of the wall opposite the doorway (Pl. XXXIII b). So, it is likely that this *stūpa* inside the hall had already been done in the first stage of work in the cave, or, at least, it was part of the original design when the cutting of cave was begun and the central doorway was fashioned.

In view of the usual practice in Western Indian rock-excavations as is seen in the unfinished caves 2, 4, 20 in Nasik and several in other places, along with the finishing of the verandah hewing of the hall too may have been commenced. In fact we are also to look for a few finished cells at least to account for the monks living in the cave as stated in the inscription of Gautamīputra's 24th regnal year.

Though the interior hall and cells, as they are seen now, present a well organised look (Pl. XXXIII b), there are some indications to recognised different stages of work in these. Firstly, it can be noticed (Fig. 29) that the benches inside the cells along the right wall of the hall are all of the 'simple type'—wherein they extend from wall to wall—whereas the benches in the cells along the back and the left walls are of the 'bench-in-reeess' type—wherein they look like large rectangular niches cut in the back wall of the cells. This difference cannot be accounted for easily except by postulating two stages of work with some notable time-gap in between. Secondly, the position of the *stūpa* indicates some deviation from the original plan. It is of course right in the centre of the back wall of the hall with three cell-

doorways placed symmetrically on either side, but it is not exactly opposite the central doorway, a position which should have been intended by the original designers of the cave. Thirdly, the whole alignment of the left wall has been shifted inside towards the hall by about a metre atleast. This has resulted in doing away with a side door on the left side which should have been there corresponding to the right side doorway leading into the hall. This was also the reason for shifting the position of the *stūpa* somewhat to right. While symmetry in design is well seen in the location of the doorways in the verandah, the same has not been maintained inside the hall. The left doorway in the verandah which was originally meant to lead into the hall, like the right doorway, now leads only to a cell. This shows that originally only the central and right doorways leading into the hall had been finished, and hence possibly the right half of the interior hall along with the cells with 'simple benches'; there was enough rock-mass still left on the left side into which the present left cell opening into the verandah could have been cut later. Thus, it appears, the first stage of work in the cave completed by the 24th regnal year of Gautamīputra Sātakarṇi consisted of the whole of the verandah, a part of the right side of the hall and the row of cells along that side. When further work was stopped due to some reason or the other the completed cells of the cave may have begun to be used[23]. Later, by about the 19th regnal year of Vaśiṣṭhīputra Puḷumāyi, the work was resumed and completed effecting a few deviations from the original plan as noted above.

What was the reason for all this chequered history of the cave ? Gautamīputra's inscription of the 18th regnal year in the verandah of this cave shows that the king had evinced interest to create a large and beautiful *leṇa* for the benefit of the Buddhist community, even when he was still in the battle field immediately after his defeat of the Kṣaharātas who had usurped the Sātavāhana possessions. It was possible partly an act of political expediency on the part of this 'eka bambaṇa'—as one of the later inscriptions calls Gautamīputra—to show his generosity towards a community, which may have had a great following in this area, in a degree not inferior to that displayed by his vanquished enemy. But he could not carry out his intention to completion; even after six years (24th regnal year) only a part of the cave had been finished. It appears, inspite of Gautamīputra's success over the Kṣaharātas, the last years of his reign were not completely peaceful. Gautamīputra's inscription of the 24th year gives indication to this fact. During that year some lands were given to the monks living in this cave in lieu of an earlier grant given in the village Kakhaḍi, which had been deserted in the meanwhile. Could the sudden desertion of the village be due to floods, famine or war ? Whatever be the reason, the fact remains that an originally inhabited village was deserted and a royal project started with great enthusiasm remained unfinished. It is also difficult to make out the reason for such a delay of nearly two decades in resuming the work of the cave[24]. At last the old queen Balaśrī who was associated with this meritorious project of her son may have wished to see its completion in her own life-time. The fact that much economy has been achieved in the second stage of work by shifting the alignment of the left side of the cave by about a metre forward may indicate that the work of completion was being hurried. Possibly the mere impending cause for the deviation from the original plan in the second stage of work is to be seen in cave 4. That cave which appears to have been made between the first and second stage of work[25] in cave 3 is located so closely as to make any extension of this cave towards left difficult. There might have been the danger of one or the other of the cells of the present cave, had they been fashioned according to the original plan, caving in to the hall of cave 4. Further, the run of a fissure in rock had been noticed in the hall of cave 4, and the architects who worked later to complete the left side of the present cave appear to have taken care to avoid the extension of the fissure, by limiting the excavation of cells to be within a safe distance away from that.

Cave 3 at Nasik introduces for the first time a few new items into the art and architectural tradition of Western Deccan. In general plan, however, the *leṇa* is a *chatuśśālā*, a form which was in vogue from early times in the region, and in this it closely follows another *leṇa*, viz. cave 10, of the same place[26], which had been created about six years earlier by Uṣavadatta, son-in-law of Nahapāṇa of the Kṣaharāta

family. A comparison of the details in delineation of different parts in the two caves provides an idea of the innovations wrought in this cave. Noteworthy are the following items :

	Cave 10	*Cave 3*
1.	The hall is plain.	A low bench runs along the three inner walls of the hall.
2.	The cells have 'simple benches' for the monks to sleep.	The benches in some cells are of the 'bench-in-recess' type.
3.	The central doorway leading from the verandah to the hall is plain.	That doorway, is decorated with sculptured *śākhās* and *toraṇa* design above.
4.	Has no backed 'bench' in the verandah; the pillars have square pyramidal and pot base rising from the floor.	Has a 'backed bench' on either side of the entrance passage in front of the verandah; the octagonal shafts of the pillars rise from the 'backed-bench.'
5.	The capitals of the pillars are of plain inverted bell type.	These are regularly pot shaped.
6.	There are engaged pillars on the side walls in continuation to the line of the front pillars.	There are rectangular pilasters in the same position.
7.	The front basement is plain.	This is decorated with *gaṇa* figures.
8.	The entablature has simple railing decoration.	This is more sophisticated. The railing has lotus ornament, with half-lotus band above and a band with animal sculptures below.

Among these items the difference in the form of the capitals of pillars may possibly be explained as a change adopted by the craftsmen. The basement decoration with *gaṇas* appears possibly for the first time, and this also appears to be the only instance of its occurrence in the early Western Indian rock-excavations and hence its exact implication can not be made out. The railing decoration is common in Western Indian caves, but railing with lotus medallions is rare. This and the animal frieze are seen here, and there are only few other caves, like the *chaitya* halls at Kanheri and Kuda (cave 6) where these occur again. While there are some instances of making a low bench to run along the three inner walls in the *maṭapas* of the early period, like Nānāghāt cave, and Nahapāṇaś cave (No. 7) in the Manmodi-Bhīmaśankar group at Junnar, which are of a date earlier than Nasik cave 3, it appears that it is for the first time here that such a bench appears inside the hall of a *leṇa*. There are many instances of such an occurence in the caves datable to a later period than this as cave 7 of the *Gaṇeśleṇa* group at Junnar, the Ambivale *leṇa*, etc. Similarly, three other items too look to appear for the first time in Nasik cave 3. In our study of a little more than 500 rock-excavations in Western India[27] these items have not been met with in any of the caves datable on stylistic, palaeographic or other grounds to an earlier period than this. They are, 'bench-in-recess', 'backed-benches' and rectangular pilasters. These, however, become very common in the caves of the succeeding period.

An item of great interest however, is the introduction of a cult object (*stūpa*) inside the *leṇa*. Cutting of *stūpas* in the *leṇas* was already in vogue in earlier periods too, one of the earliest possibly being in the *leṇa* adjoining the *chaitya* hall at Kondane. But they are normally seen out on a side wall of the verandah and never inside the hall. It is in this cave at Nasik that it occurs in such a position provided in addition with a finely decorated doorway in front, emphasising its sanctity and importance.[28] The location of the *stūpa* in that position appears to inaugurate a tradition which resulted in the making of a *stūpa* shrine inside *leṇas* as in Mahad cave 8 or Shelarwadi *chaitya* hall and ultimately in the later Mahāyāna *vihāras* with Buddha shrines in a similar position. The sudden appearence of this new feature cannot be explained as due to local development and here is also possibly a distinctly different idealogical element introduced for the first time into Deccan from elsewhere. The third and the fourth inscriptions mentioned above provide definite clues about that. They inform that this *leṇa* had been donated to the community of *Bhadāyanīyas* (Bhadrāyanīya). The fourth inscription further informs that the monks hailed from Dhanakaṭa (Dhanakaṭa samaṇēhi). This Dhanakaṭa is possibly Dhanakaṭaka

(Dhānyakaṭaka) of the Andhra country. A clue for this identification is available in the from of the *stūpa* carved in this cave which has multiple umbrellas with curved staffs rising like lotuses form the *harmikā*. *Stūpas* with similar features are seen extensively in the sculptures of Amarāvatī[29]. The railings with lotus medallions and the animal friezes below them were also part of the contemporary Andhra art repertoire[30]. It is not unlikely that the other new items we have mentioned above were also in vogue there and were introduced to Western Deccan during this time, though analogous items, which may have been in brick or wood in the structural monasteries, have not survived in the Andhra country to prove this contention. Gautamīputra's political hegemony had extended over Andhra too. Considering the political situation of the time when the whole of Western and Northern Deccan was under the sway of the Kṣaharatas, it is not unlikely that Gautamīputra, held sway and mobilised his forces and resources in the Andhra region before venturing upon the conquest of Deccan. Here possibly lies the reason for the special favour the Dhanakaṭa monks received in a Western Indian monastery[31]. While these monks were possibly causal for the new religious idea of introducing a *stūpa* prominently inside the *leṇa*, the craftsmen who hailed from that region or who worked according to the prescriptions laid down by the Dhanakaṭa monks may have introduced the newer items in architectural delineation.

REFERENCES

1. The Pāṇḍuleṇa group of caves, about 8 km south-west of Nasik city, Maharashtra.
2. *Vihāra* refers to the whole monastic complex. Early Prākṛt inscriptions of Western India use the word *leṇa* specifically to refer to the caves meant for the monks to reside.
3. Detailed descriptions of the cave are available in Fergusson, J., and Burgess, J., *The Cave Temples of India*, London, 1880, p. 267; and *Bombay Gazetteer Nasik District*, 1883, p. 544.
4. Senart, E., 'The Inscriptions in the caves at Nasik'. *EI.*, VIII (1909), p. 59 ff, Inscription No. 4, p. 71.
5. '*Pavojitāna Tekirāsina*'. The word Tekirāsi is not properly understood. It is considered that here is a scribal error and the word intended was possibly *Terassikānaṁ*, which would mean 'the monks residing on the Terassi or Triraśmi hill (*i.e.* the hill with the present caves).
6. Senart, E., *op.cit.*, Inscription No 5, p. 73.
7. *Ibid.*, Inscription No 2, p. 60.
8. '*lenasa chitaṇa nimittaṁ*'.
9. Senart, E., *op. cit.*, Inscription No. 3, p. 65.
10. Nilakanta Sastri, K.A., "The Later Satavahanas and Sakas", *JRAS.*, London, 1926, p. 665.
11. Gopalachari, K., *Early History of the Andhra country*, Madras, 1941, p. 65 ff.
12. Dehejia, V., *Early Buddhist Rock-temples*, London, 1972, p. 95 ff.
13. It may be noted that Gautamīputra had acquired this territory afresh after defeating Nahapāna. Just a few years earlier, Usavadata, son-in-law of Nahapāna had caused the making of a large and beautiful *lena* (Cave 10) at the same place. Does expediency permit the victor to be parsimonious in his donation compared to his defeated rival ?
14. Dehejia, *op.cit.*
15. *Ibid.*, Fig. on p. 94.
16. Fergusson and Burgess, *op.cit.*, p. 274 (Cave XIV).
17. *Ibid.*, p. 513.
18. *Ibid.*, p. 232.
19. *Ibid.*, p. 260.
20. The hall doorways are not normally decorated at all.
21. Fergusson, J., and Burgess, J., *op.cit.*, p. 272 (Cave XIII).
22. *Ibid.*, p. 258.
23. There are many instances in Western India where partly finished caves have been used. Many caves in Junnar-Manmodi provide good examples. In some of these, though the cells are still unfinished with irregularly cut walls, sockets for wooden frames for doorways have been made, as well as holes on opposite walls inside for fixing the *valagni* (pole for hanging the monk's clothes).
24. The inscription of Gautamīputras 24th regnal year is slightly unusual in its format. It states that the grant was made by the provincial official at the instance of the chief queen and the mother of Gautamīputra Sātakarni. It is the normal

practice in all royal inscriptions of the period to mention the name of the then reigning king first and to state that the matter recorded further on is as ordered by the king or that it happened during a certain date in the reign of that king. There may be some relevant reason in the deviatien in the format seen in this inscription. The fact that all the *purāṇas* mention only 21 years as the reign-period of Gautamīputra may also have some significance in this context. If these are taken together with the statement in the Junagadh inscription (A.D. 150) of Rudradāman that he had defeated a Sātakarni thrice, but was liberal towards him due to his near relationship to him, there will be scope for a few more conjectures. Could it be likely that Gautamīputra's son Vāsiṣṭhīputra Pulumayi was the person closely related to Rudradaman and that due to this his attitude towards his father was not so cordial ? Does this further indicate the reason for the lack of interest on the part of Vāsiṣṭhīputra in completing the ambitious project initiated by his father, which a dutiful son would have done immediately after his accession to the throne ? How else the delay of nearly 20 years in resuming the work in this cave and causing a *praśasti* to be written in honour of his dead father can be explained ?

25. Cave 4, which consists of an unfinished hall and a well finished facade and verandah, is identical in its features to cave 2 and these two caves may be contemporary ones. Cave 2 has a foundation inscription dated in the 6th regnal year of Vāśiṣṭhīputra Pulumāyi.
26. For detailed description of cave 10 see Fergusson, J., and Burgess, J., *op.cit*, p. 270.
27. Nagaraju, S., *A study of Rock-cut Architecture of Konkan and Western Deccan, C.* 250 B.C.-A.D. 300, Doctoral thesis submitted to the Karnataka University, Dharwar, 1977.
28. However, in cave 10 also a *stūpa* had been cut in the back wall of the hall. (That *stūpa* has been disfigured and converted into an image of *Bhairava*. A few umbrallas only are remaining intact at the top). But it can be seen on close observation, that the relief *stūpa* in cave 3 is an integral part of the original design, where as that which was in cave 10 was the result of after thought. There it was cut in a sunken panel in the wall which had previously been finished plainly. That *stūpa* appears to have been made at a later date imitating the one in cave 3.
29. See Stern, P., and Benisti, *Evolution Du Style Indian D'Amarāvatī*, Paris, 1961, p. 11, Figs. 1-5.
30. *Ibid.*, plate IV, V and IX.
31. *Bhadāyanīyas* are mentioned for the first time in Western India in the inscriptions from this cave.

XXIV

Sub-Urban Planning and Rock-Cut Architecture in India

MICHAEL W. MEISTER

With Indian as with European architecture there is a tendency to talk only of the monumental—a tendency reinforced by the nature of things preserved. Yet in India, as in Europe, urban and sub-urban land-scapes were created to serve the needs of an expanding community, efforts as much a part of the history of architecture as the cathedrals and temples which they surround. Whether it be the market/apartment complexes of ancient Rome, brick houses at Mohenjo-daro, or monastic complexes for monks in India, consciously organized residential facilities also should form part of the responsibilities of an historian of architecture.

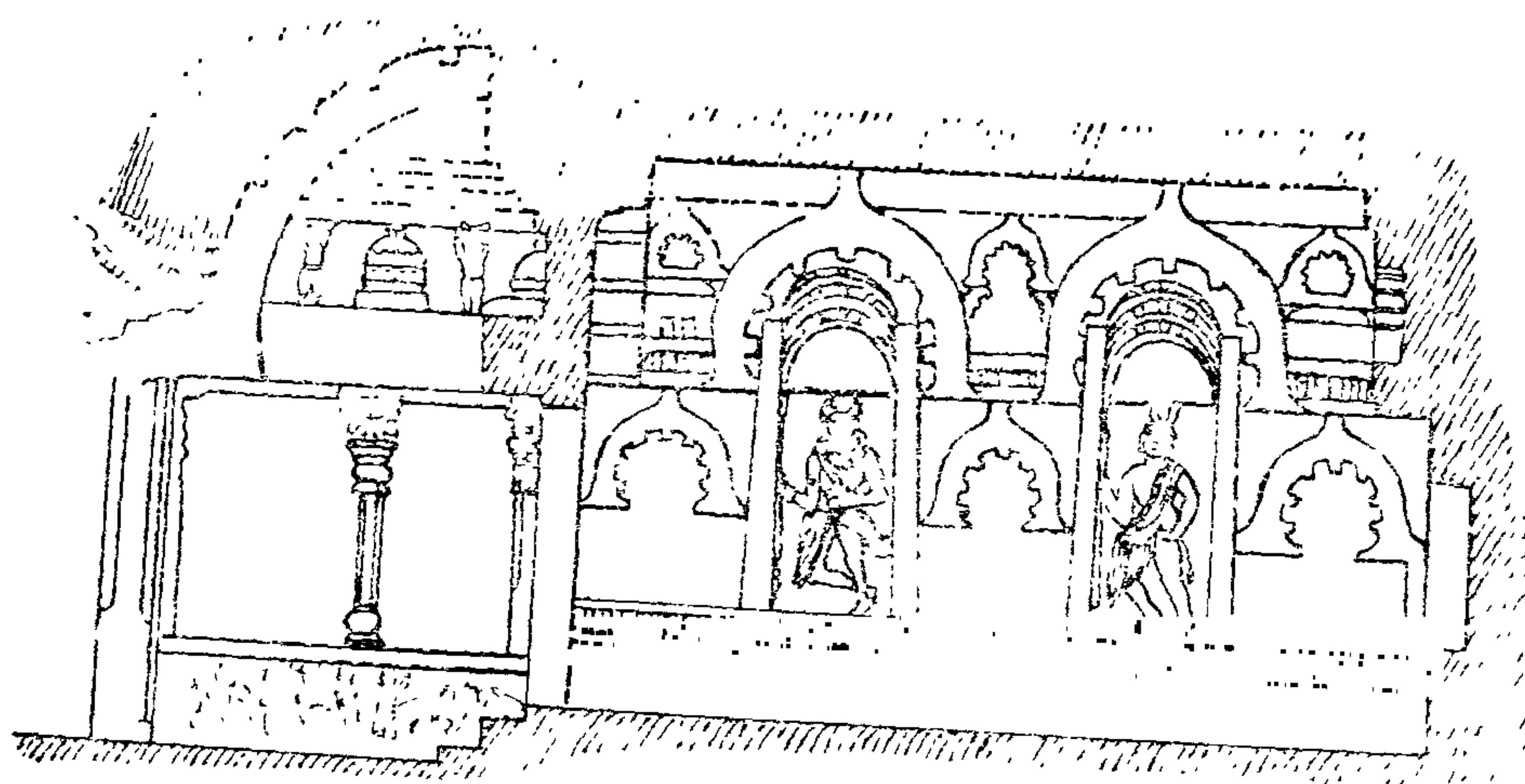
In India something is known of the architecture of ancient palaces and cities from stone reliefs on Buddhist monuments.[1] Palatial architecture on a wooden model also acts as facade for the great rock-cut Buddhist establishments excavated in the Western Ghats. Little is known, however, of residential architecture in India in an age of renewed urbanism.[2] Texts provide some insight into the particularities of house architecture, something of the organization of cities, yet little of the integration and interaction of residential space which makes up an urban or sub-urban landscape.

I wish to look at a particular aspect of rock-cut architecture in India—the residential cell—and at a particular and unique complex, that at Kanheri,[3] to try to suggest the responsiveness of planning to environment that one finds in the Indian (at least Buddhist) context.

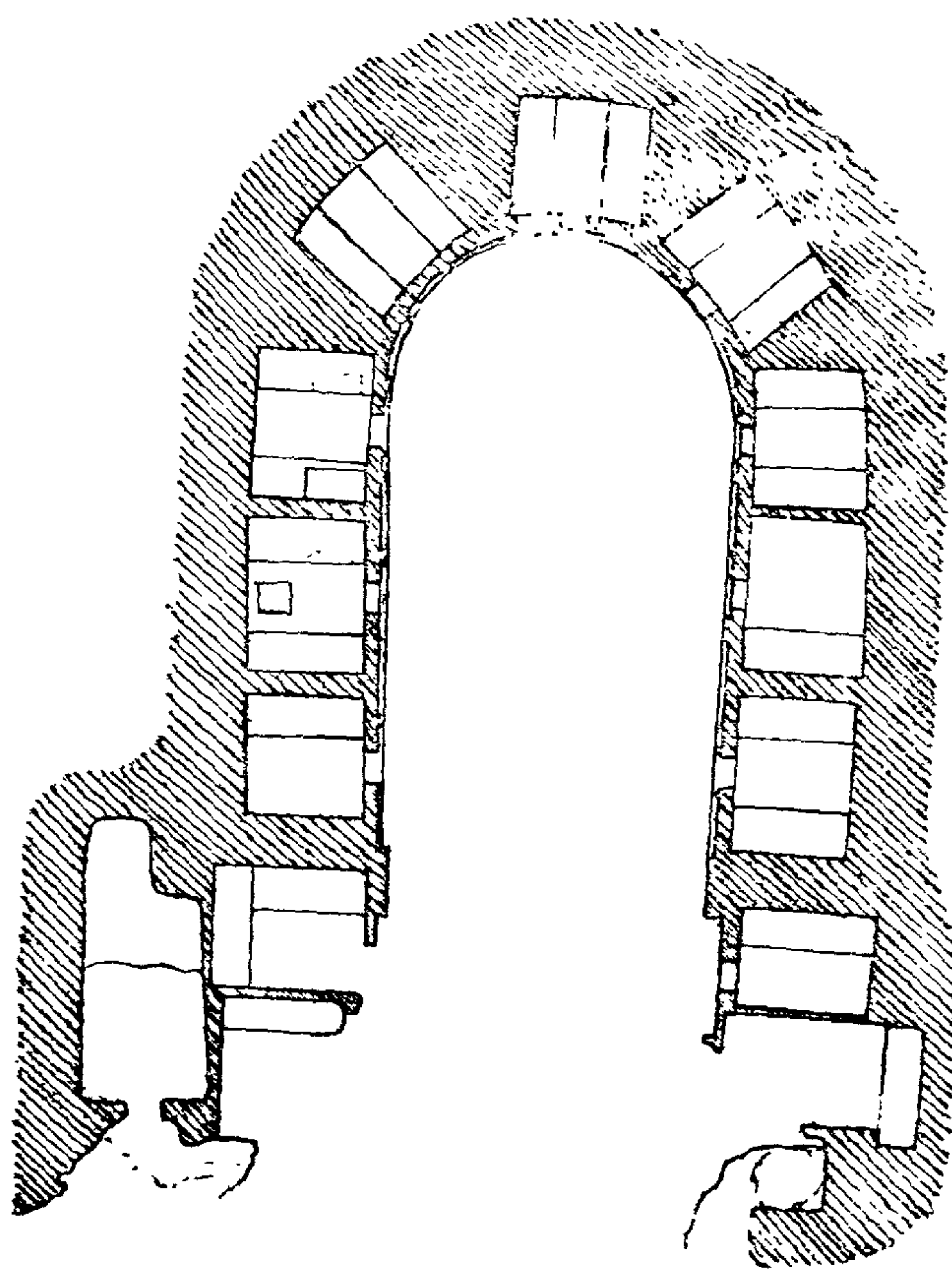
Cave-cells for monks are known from at lease Aśoka's time. The Lomas Ṛṣi and Sudāma caves in the Barabar Hills in Bihar replicate in their interiors both the hut and the clearing of a forest ascetic's retreat.[4] At Udayagiri in Orissa Jaina caves of Khāravela's period are scattered around a low scarp.[5] Some of these are simple conceits, like the tigar cave, where a boulder has been turned into gaping jaws enclosing the ascetic's cell. Others form complex apartment structures : illuminated verandahs on two stepped storeys connect cells on three sides of a central court (Pl. XXXIV a). Such communal constructions speak already of organizational structures which go beyond simple asceticism. Such monastic complexes already acted as "sub-urban" complexes, in their own day as they do now.[6]

We think of the typical Buddhist monastic establishment or *Vihāra* as having cells on four sides which open into a central court which is open to the sky. Remains of such brick structures exist at Taxila, Sāñchi, Sārnath, Nālanda, and elsewhere.[7] Rock-cut architecture—at Kaṇḍagiri-Udayagiri and also in the Western Ghats—initially ignores such a hypaethral complex, adapting wooden models to suit the natural stone in which the living quarters were encased. Cells either were scattered along the rock's natural contours, or were combined in such complex, multi-storeyed apartments as we have seen at Udayagiri (Pl. XXXIVa-b).

Western Ghat caves show a variety of experiments at clustering cells in functional as well as meaning-ful ways. The famous *Vihāra* No. 19 at Bhaja, with Indra and Sūrya in attendance, is an elegant separate residence, perhaps for a chief monk (Fig. 30 a). The great *Caitya* assembly hall which acts as focus for the complex borrows its architectural forms from urban, palace, wood architecture.



a



b

Fig. 30. a. Bhaja, Vihāra 19 (after *Cave Temple of India*, Pl. XCVII, 2).
b. Bedsa, Vihāra (after *Cave Temples of India*, Pl. X).

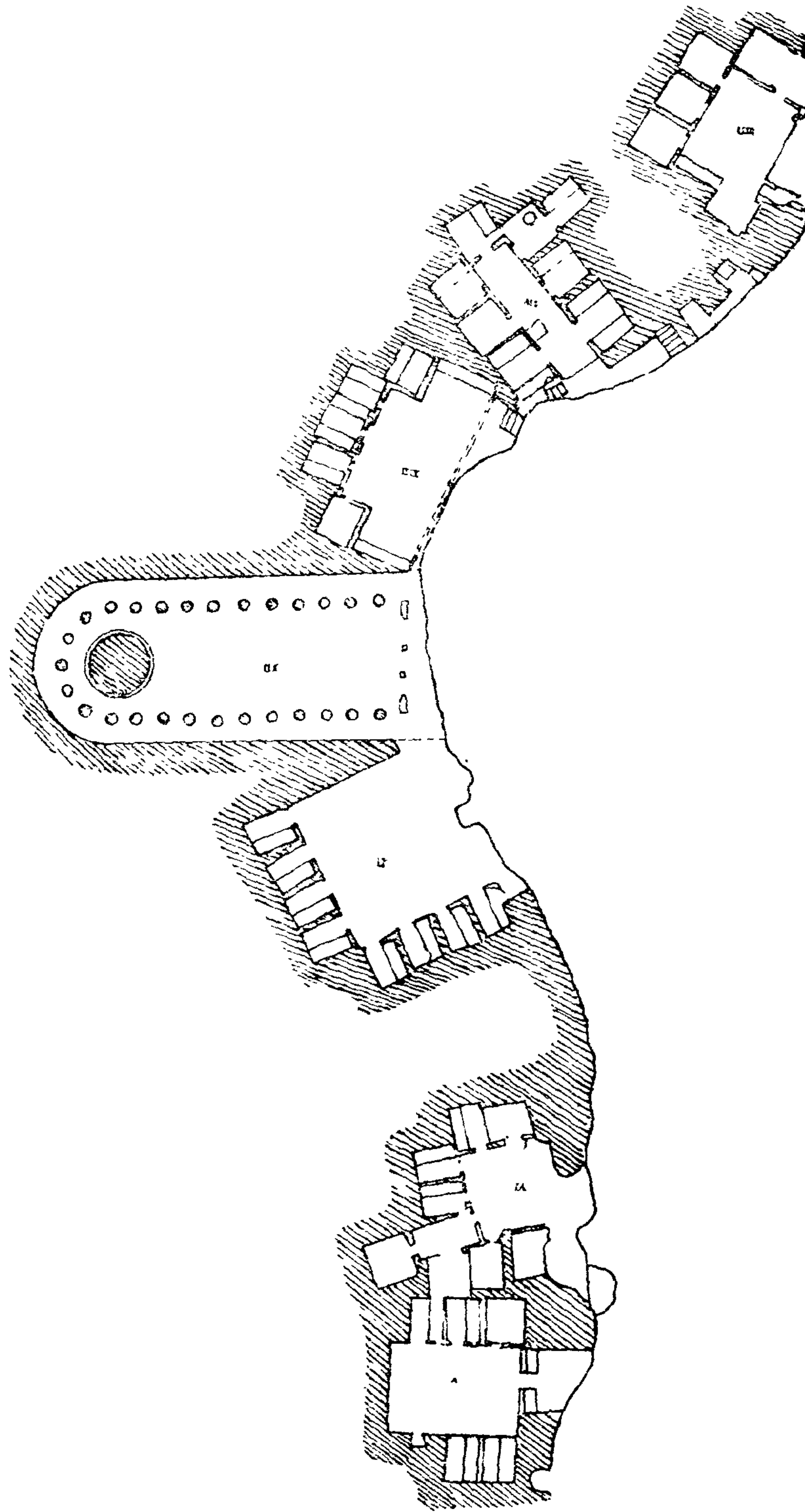


Fig. 31. Bhaja, Chaitya Hall and Vihāras (after *Cave Temples of India*, Pl. IX).

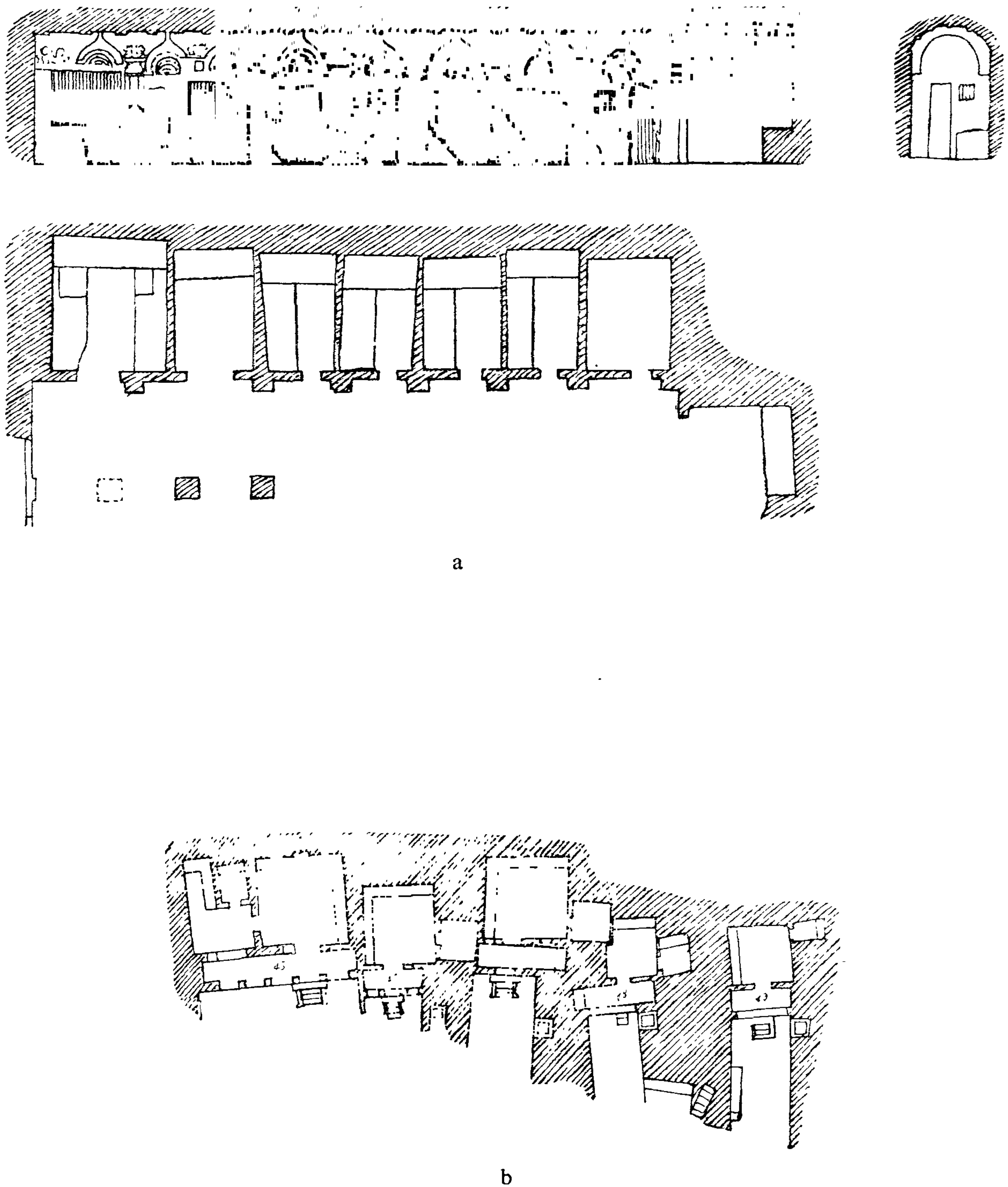


Fig. 32. a. Pitalkhora Vihāra Plan, elevation and Section (After *Report on the Buddhist Cave Temples and their Inscriptions*, Pl. VII 1-3).
b. Kanheri, Caves 45-49 (After *Report on the Buddhist Cave Temples and Their Inscriptions*).

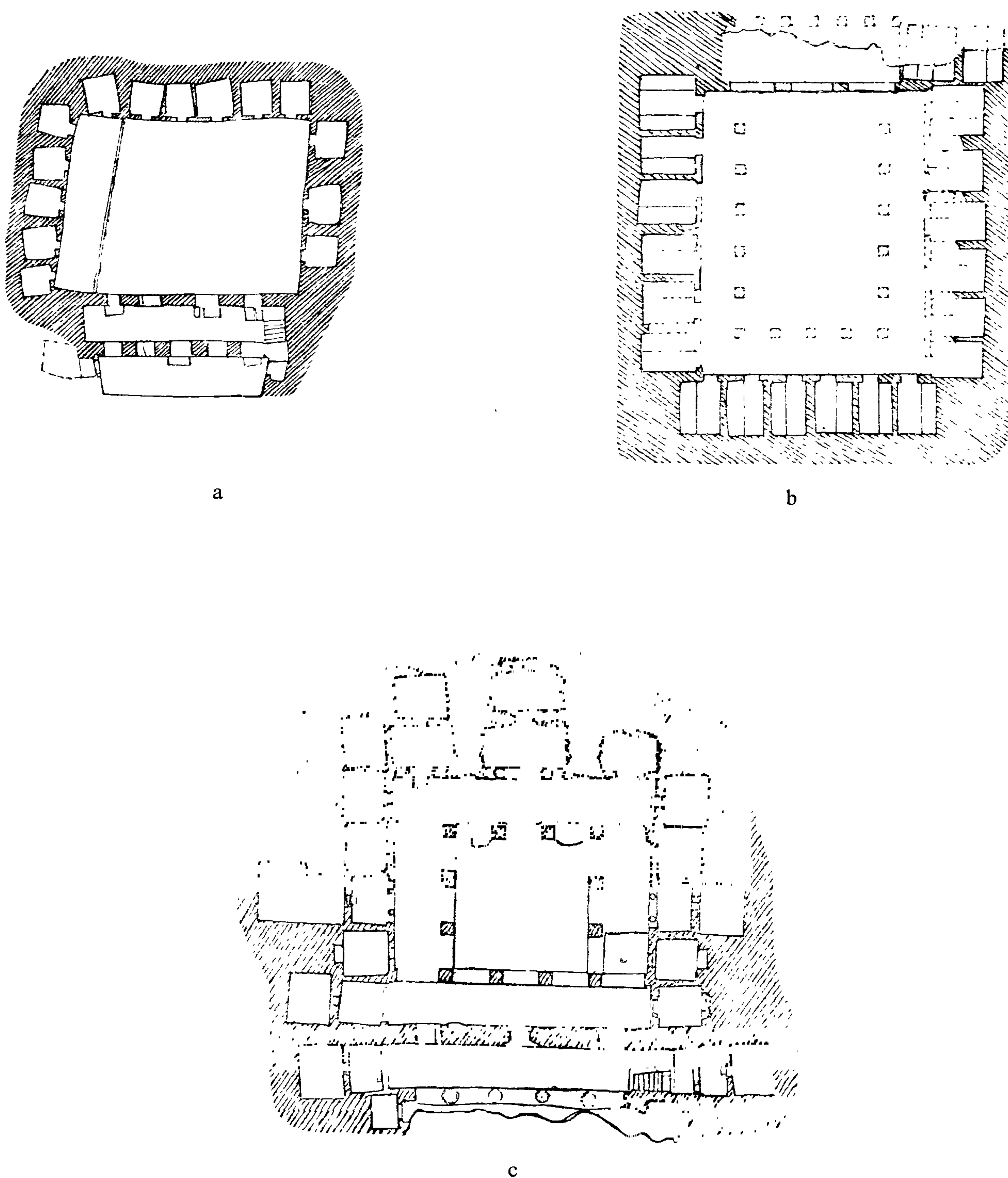


Fig. 33. a. Karle, Vihāra 1, Plan of the second floor (After *Report on the Buddhist Cave Temples and their Inscriptions*).
b. Kondane, Vihāra (After *Cave Temple of India*, Pl. VIII).
c. Ajantā, Cave 6, upper storey (After *Cave Temples of India*, Pl. XXXII)

The multi-storeyed residential cells which cluster around it act as rooms in the palace and share in the general facade (Fig. 31). These signal as much the development of the urban model as of the wealth or social order of the Buddhist sub-urban establishment.

The single cell for the forest ascetic, as a model for rock-cut architecture, was largely replaced by "*bhikṣu-gṛhas*"—clusters of cells for wandering monks.[8] These were dependent on urban areas for alms, bringing together mendicant monks for continued instruction. The form of architecture used for such clusters was initially that of wooden vaulted cells along a verandah, as at Kaṇḍagiri or Pitalkhora (Fig. 32 a). Stone beds were built in. Water often is collected in cisterns. Ways to provide common space within the rock were sought, however, from early in the history of rock-cut architecture. The Bhaja *Vihāra* adds behind a verandah wall a common room, with cells around it (Fig. 30 a). At Bedsa an attempt was made to adapt the apsidal meeting-hall as common space around which to arrange a series of cells (Fig. 30 b). At Nāsik, Ajantā in the first century, and at Kārli in two storeys, cells were arranged around three sides of square court-like room entered from a fronting verandah (Fig. 33 a). At Kondane for the first time an interior "verandah" for these side and back cells was provided by a rows of pillars on three sides of the "court" (Fig. 33 b). It was only much later, however, after the *Vihāra* had already become a temple, with a Buddha image housed in an enlarged cella as sanctum at the center of the back wall, that this "verandah" was closed by a front row of pillars, making of the central court a *maṇḍapa* interior (Fig. 33 c). Such shrines we see at Ajantā, Aurangabad and Ellora from the 5th through the 7th centuries.

The evolution of monastic cells into monastery courts and then into monastic shrines is relevant to, but separate from, the question of residential planning which I wish to confront. It is evolution of an element, not of the whole. Ajantā, near the end of that evolution, provides a series of temples engulfed by rock, not the natural mixing of residence and rock-scape which I feel typical of Buddhist sub-urban complexes. Of that, Kondivite and Kanheri are better examples.[9]

Kanheri (*Kṛṣnāgiri*; *Kaṇhasela*) consists of ca. 112 caves, scattered over a round of rock and through a ravine in the woods beyond the suburban sprawl of modern Bombay. "The existence of so many monastic dwellings in this locality", we are told, "is partly accounted for by the neighbourhood of so many thriving towns. Among the places mentioned as the residences of donors to them, occur the names of Supāraka,...Kalyān, ..Samyua,... and Vasya."[10] As we see it today, the complex belongs largely to the 2nd-3rd centuries A.D. but it was added to over a period of perhaps a thousand years. There is a major *Caitya* hall of the 2nd century A.D. and a large "Dharmaśālā or Darbar hall which was partly added to in the 6th or 7th century (Pl. XXXV a), but most of the caves are simple, and elegant, residential cells. These have often two rooms, one with a stone bed, and a verandah separated from a front court by a low *vedikā*-wall. The forecourt—apparently sheltered in the rainy season by temporary structures—has often stone benches; channels set in the rock collect rain-water and accumulate it in artificial cisterns.

The humane and simple qualities of these retreats can hardly be sensed without being present at the site. Sanely and with forethought caves with various functions have been integrated into a natural landscape, making of the whole something more than any of its parts. Neither the *Caitya* nor the *Darbar* cave dominates, though both contribute to defining the site. Small residential caves such as that in Pl. XXXV b nestle into the scarp of the ravine—sockets for temporary extensions over the forecourt present—benches for "taking the air" provided; steps in the rock lead up to the *Darbar* and down to the *Caitya* assembly-hall; channels control and collect rain water for year-round use.

A stairway east of the main *Caitya* cave, now flanked by a lion, leads up to this gorge, surrounded by monastic cells. Some have carvings (of a later period) but it is from the point of view of an urban planner that these caves can best be appreciated. More than any other such monastic establishment in India, that at Kanheri displays order and refinement as a place for multiple residences. Each cell shows a natural, but considered siting which produces a living environment (for monks in the monsoon) that well could be emulated by planners today. "Habitat" at the Expo '67 in Montreal more artfully but no better integrated habitation into a natural "flow." There are, throughout this complex, public benches, and tanks and channels to preserve the monsoon's water. James Burgess wrote of Cave 35 in his

Report on the Buddhist Cave Temples :

"The verandah in front has four pillars-octagons with square bases, and a parapet wall carved with rail pattern in front over a panelled basement, which raises the verandah floor 3 ft. 2 in. above the level of the court. On each side of the court is a long stone bench, forming a pleasant seat in the evenings, with a magnificent view over Salsette to the westward, with the sea along the horizon. Two rows of holes across the court mark the position of wooden posts which supported a sloping roof raised against the front of the cave for further comfort during the rains. A cistern of excellent water close to the front of the verandah on the left side, would supply abundant water for the community."[12]

Even the British saw comfort in Kanheri's natural surroundings.

In intriques me that when the Chinese pilgrim, Fa-hsien, visited Indian in the 5th Century, he had heard of a large monastery in the South called the "Pigeon Monastery". Of this he wrote :

"There is a country named *Dakṣiṇa* where there is a monastery (dedicated to) the bygone Kāśyapa Buddha, and which has been hewn out from a large hill of rock. It consists in all of five storeys... At the top there is a spring, the water of which, always in front of the apartments in the rock, goes round among the rooms, now circling, now curving till in this way it arrives at the lowest storey, having followed the shape of the structure and flows out at the door. Everywhere in the apartments of the monks, the rock has been pierced so as to form windows for the admission of light, so that they are all bright, without any being left in darkness."[13]

This is in sharp contrast to the dark cells in the *Vihāra*-temples at Ajantā and elsewhere. In olden days, we are told, men used to fly up to the top, but now, in this diminished age, men use stairs.

One cannot be sure of Fa-hsien's geography, yet it could well have been Kanheri that he was describing. At least no other complex of Buddhist residences has been developed so magnificently elsewhere in India. No other forest retreat so well exemplifies the sub-urban residential complexes urban patronage and Buddhist belief were able to produce.

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2. The early Buddhist period coincides with what has been called a period of "second urbanization," following by over a thousand years the rise and decline of Indus-Valley cities. A summary analysis of available evidence has been provided by A. Ghosh, *The City in Early Historical India*, Simla, 1973.
3. James Fergusson and James Burgess, *The Cave Temples of India* (1880), Delhi, 1969, 348-360; James Burgess, *Report on the Buddhist Cave Temples and Their Inscriptions* (Archaeological Survey of Western India, IV), London 1883, 60-70. *See* also Dutt, S , *Buddhist Monks and Monasteries of India*, London 1962, 152-161.
4. John C. Huntington, "The Lomas Rsi : Another Look," *Archives of Asian Art*, XXVIII, 1974-75, 34-56.
5. Debala Mitra, *Udayagiri and Khandagiri* (1960), New Delhi, 1975.
6. That Buddhist monasteries needed to be both removed from a town and in the vicinity of towns was dictated by the realities of Buddhist patronage and belief. In a similar way Buddhist retreats ring the city of Kyoto today. For the communal componant in Buddhist monasticism, which helps to reinforce the resemblance these complexes have to the denser urban and suburban requirements of today, See Dutt, 53-65, 92-97, and *Passim*.
7. Debala Mitra, *Buddhist Monuments*, Calcutta, 1971, 30-41; Sarkar, H., *Studies in Early Buddhist Architecture of India*, Delhi, 1966.
8. Vidya Dehejia, *Early Buddhist Rock Temples*, London, 1972, 92-113. Dehejia points out "dormitories" of rows of cells, and suggests that the *Vihāra* Cave 3 at Nasik had two stages of construction, first as three cells along a verandah (a fourth at the end); this was than later expanded to form a large court behind the verandah's wall with multiple cells around (pp. 94-95).

9. See site plans, *Report*, Pls. XXXVIII, XIII.
10. Dutt, reports a donatory inscription which calls one of the caves by the name "Sāgarapralokana," or "Sea-view."
11. *The Canadian Architect*, 12, 10 (October 1967), 31-49. Habitat was built by the architect Moshe Safdi and David, Barott, Boulva, Associated Architects as a prototype of a "building system" which might provide a mass-produced solution to the problems of mass housing. Made up of interlocking levels connected by pedestrian walkways, the 158 units finally built averaged ca. $140,000 in cost. Safdi's definition of a "building system" is relevant to our estimate of Kanheri's accomplishment : "a form of organization for the process of construction" (p. 46).
12. Burgess, James, *Report on the Buddhist Cave Temples*, p. 65.
13. "Dakṣiṇa and the Pigeon Monastery", in Nilakanta Sastri, Foreign Notices of South India, Madras, 1939-66. James Legge, *A Record of Buddhistic Kingdoms* (1886), New York, 1965, Ch. XXXV, 96-98.

XXV

The Rock-cut Cave-Temples of Arvalem, Goa

GRITLI V. MITTERWALLNER

INTRODUCTION

The rock-cut cave-temples near Arvalem, located today in the jurisdiction of the Taluka of Bicholim, are situated to the southwest of a water-fall and a structural temple of *Śiva*, called *Rudreśvara*. They may be reached in some minutes walk from the main road which connects Sanquelim with Onda.

The caves have been known to the local people of the surrounding areas since ancient time. According to Gaumkar Gajanath Vithoba Arvalkar, *pūjā* ceremonies are carried out in the cave-temples once a year at the time when work starts in the fields.

The local tradition uniformly associates the cave-temples with the five *Pāṇḍava* brothers and their wife *Draupadī* of the *Mahābhārata*, who are said to have taken refuge to this sylvan locality after their having been exiled to live in the forest for 12 years.[1] Various mostly corrupt names bespeak this tradition. Thus the rock-hewn cave-temples of Arvalem are called : "*Houri dos Pondãos*",[2] "*Pā(m) ḍavāṃcyā havesyā*"[3] and "*Pandhavas*".[4]

DESCRIPTION

There are altogether 5 shrine-chambers and one room, devoid of an image, cut into the top of the slope of a low laterite outcrop, descending from north-east to southwest (Pl. XXXVI a). At the foot of the slope a mostly dried up rivulet marked its path through wooded area in the same direction.

Five of the six rock-cut cells, No. 2, 3, 4, 5 and 6, are oriented towards the south; cell No. 1 at the extreme northwestern end of the row of caves, however, faces the southeast (Fig. 34). The latter adjoins shrine-cell No. 2 at a right angle. Shrine-chambers No. 1, 2, 3, 4 and room No. 6 at the southeastern end of the multi-chambered row are excavated in the shape of squarish cubes. The floor of shrine-cell No. 1 measures 1.61, 5 m × 1.78 m on plan; the height of the chamber being 2.30 m at the rear-wall and 2.15 m at the entrance. This shrine-chamber is a little smaller than the rest, but like the others excavated in an irregular fashion, *i.e.*, none of the corners is hewn in a right angle.

The floors of shrine-cells No. 2, 3 and 4 measure respectively : 2.16 m × 2.06, 5 m (cell 2), 2.43, 5m × 2.03 m (cell 3) and 2.31 × 2.31 m (cell 4) on plan; their heights are 2.34 m (cell 2), 2.41 m (cell 3) and 2.35,5 m (cell 4), measures at the rear-walls.

The floor of room No. 6 measures 2.56 × 2.60 m on plan. Its height is 2.36 m at the rear and 2.14 in front, near the entrance.

The only chamber, which deviates from this type of cubic cells, is No. 5, being conceived in the form of a rectangular room, placed in transverse direction with its long side towards the entrance from the south. It measures 6.26 m in length and 2.79 m in width. Its height is 2.13,5 m at the rear and 2 05,5 m in front.

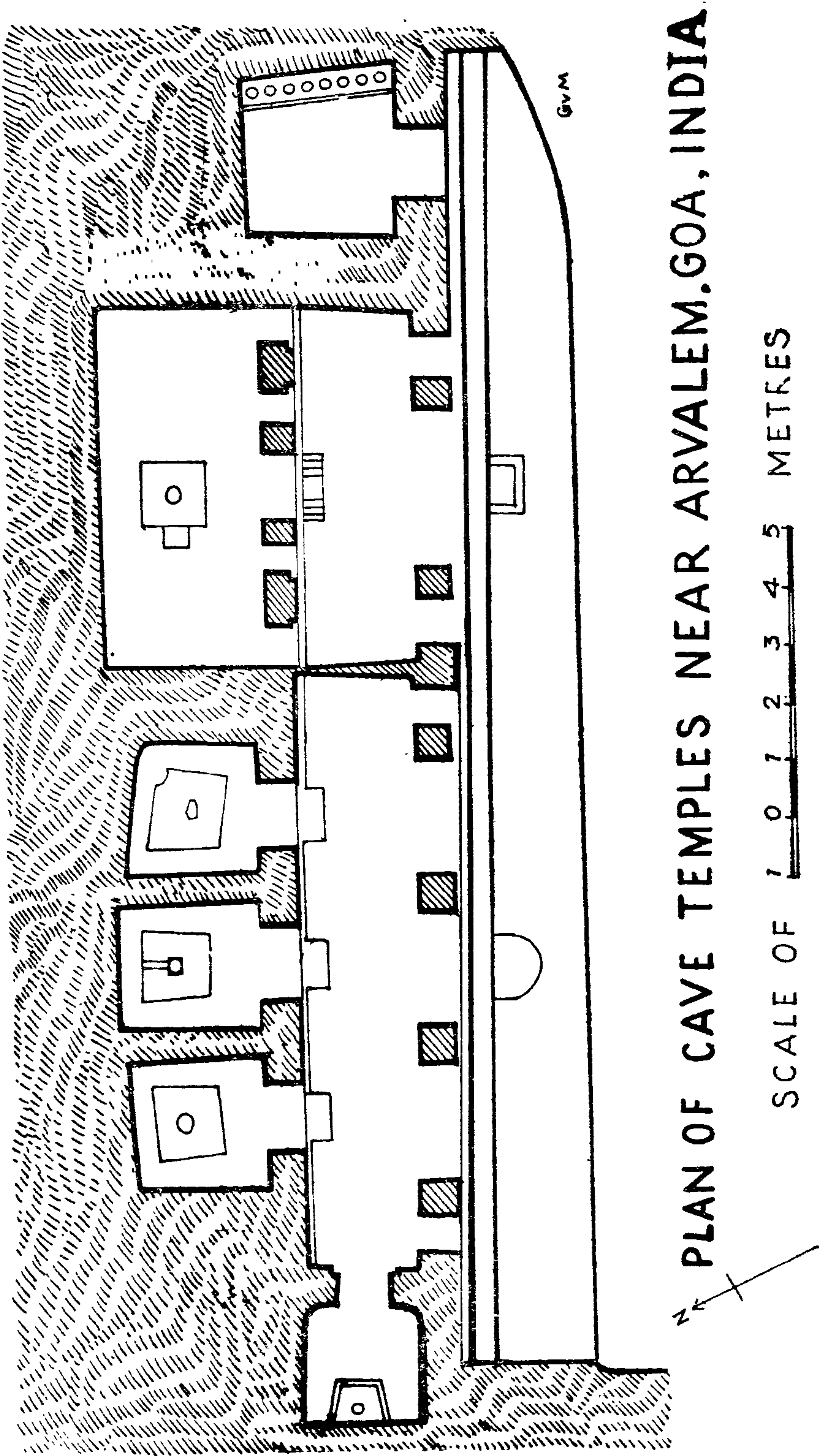


Fig. 34. Plan of Cave Temple near Arvalem, Goa.

Shrine-chamber No. 1 : Contains a square altar (*pīṭha*) of 88,5 cm height. Like the other *pīṭhas* in shrine-chambers No. 2, 3, 4 and 5, it is hewn from the living laterite rock and shaped like a plain block, *i.e.* it is devoid of any mouldings or subdivisions (Pl. XXXVI a). In the squarish hole in the centre of the square surface of the *pīṭha*. the detached *liṅga* of the God *Śiva*, made of fine grey basaltstone, had been inserted. The *liṅga* in *garbha-gṛha* No. 1 could not be circumambulated, because the *pīṭha* was carved on the rear-wall of the cella.

Shrine-chambers No. 2, 3 and 4 : Contrary to this practice in shrine-chamber No. 1, the rite of *pradakṣiṇā* or circumamubulation had been provided for in shrine-chambers No. 2, 3 and 4; for in these the *pīṭhas*, hewn from the live mass of the laterite rock, were left standing in the center of the chambers.

The cult-images of all three shrine-chambers, like the one in shrine No. 1, are carved in greyish basaltstone, which must have been brought from far distant regions as there is none available in the neighbourhood. The rock-altars (*pīṭha*) in block-or trapezoidal-form, measure 89 cm (cella No. 2), 85, 5 cm (cella mo. 3) and 80,5 cm (cella No. 4) in height.

The group of 4 shrine-chambers, No. 1, 2, 3 and 4, has to be entered through a common front-hall, cut into the laterite rock in front of them. The intention of this common verandah, giving access to the 4 shrine-chambers, seems to have been to protect the devotee from the inclemencies of the weather, when standing before the shrine-doors.

Shrine-chamber No. 5 : There is no connection between this group of 4 shrine-chambers and shrine-chamber No. 5. The latter is separated from the group by a wall. Obviously this rock-shrine, therefore, was meant to form a separate entity with an anteroom of its own. Rock-temple No. 5 likewise has a facade of its own and two small square windows in the walls, separating the shrine-chamber from the anteroom. The shrine-chamber houses a basaltstone *liṅga*, sunk in a laterite *pīṭha* of 71 cm height, hewn from the living rock in the center of the room, thus allowing *pradakṣiṇā* as well (Pl. XXXVII a).

Rock-cut room No. 6 at the far southeastern end of the row contains no cult-image or altar (*pīṭha*). This must be the reason, why it is not fronted by an anteroom like the shrine-chambers.

There is, however, a cupboard, which runs a long the total length of its southeastern wall. It is carved in block-form from the living laterite rock, measuring 2.82 m in length and 12, 5 m in height.

Into its rimmed surface of 55 cm breadth 6 circular pan-like depressions (17 to 22 cm in diameter) have been cut, placed at regular intervals, measuring approximately 14 to 15 cm. Two further spheroid hollows in the northeastern end of the cupboard are filled with earth. There is an 11 cm broad elevated rim which borders the cupboard towards the room.

This room apparently served as an annex to the five shrine-chambers, housing cult-emblems. It was probably meant to contain the sacrificial fluids, used in the ritual ceremonies in the nearby shrines.

That such liquids had been poured in certain ceremonies over at least some of the cult-images at the site in ancient time, is firstly proved by the raised 9 to 11 cm broad rim around the square surface of the best preserved *pīṭha* in shrine-chamber No. 1, which obviously was to prevent the fluids from dropping on the floor. It is secondly substantiated by the circular depression in vessel-form (of 33 cm diameter), cut into the floor of the shrine-chamber No. 1 on the northeastern side of the *pīṭha*. Into this depression the sacrificial fluids were channelized through a 15 cm wide groove in the surface of the *pīṭha*, serving as a sort of archaic *praṇālī* (The latter does not project beyond the surface of the *pīṭha* like those of later time).

The surface of the badly deteriorated opened *pīṭha* in shrine-chamber No. 3 and the one in No. 5, likewise are furnished with a groove of ca. 13 cm breadth on their north, northeastern backside in the direction towards the rear-wall of the shrine chambers (Pl. XXXVII a & b). The floor of both chambers, however, shows no indentation in vessel-shape.

Udayagiri, cave-temple No. 17 : An almost identical cupboard, like in room No. 6 at Arvalem, has been preserved in the northern sidewall of cave-temple No. 17 at Udayagiri, M.P. (Pl. XXXVIII a). In this temple, however, the 45,5 cm broad surface, containing three rimmed shallow vessels of circular shape (17 to 26 cm in diameter) had been cut into the wall in the form of a niche, which only measures 1.24 m in length; its height being 95,5 cm from the floor.[5] Unlike room No. 6 at Arvalem, cave-temple No. 17

at Udayagiri served as a shrine-chamber or *garbha-gṛha*. This is demonstrated by the *pīṭha* which had been hewn from the live sandstone rock in the centre of the floor.[6] There is also a deep groove, cut into the floor of the *garbha-gṛha* on the northern side of the *pīṭha*, which allowed the fluids, used during *pūjā*-ceremonies, to flow off through a hole in the eastwall of the *garbha-gṛha*.

FACADES OF THE ROCK-CUT SHRINES AT ARVALEM

The facade of the whole series of rock-excavations at Arvalem consists of three different entities (Pl. XXXVI a) :

1. Firstly of the four-pillared verandah, giving access to the shrine-chambers No. 1 to 4. The two inner pillars of the verandah are placed at equal distance from one another and the next. The two outer ones, however, are separated from the side-walls by narrow openings only. By way of this irregular spacing, the facade is divided into three large openings of equal size and two narrow ones at the sides.
2. The facade of the second entity, *i.e.* of the anteroom in front of shrine-chamber No. 5, is supported by merely two pillars, placed far apart from each other, near the side-walls: thus, like in the first entity, two narrow openings of only 68 cm breadth at the sides are created and one large opening, serving as entrance, measuring 2.62 m in width. This facade is emphasized by a conspicuously deep moulding which in horizontal extension spans the whole length of it.
3. Room No. 6 has no anteroom and hence no facade. The door, giving access to the room, is simply framed by a groove.

STEPS

Along the facade of all three entities two broad steps have been hewn into the laterite ground. Two of the shrine-chambers, *i.e.* No. 3 and No. 5, are accentuated as main shrines of the series by stepping stones, having been placed in front of their entrances. The one in front of shrine No. 3 is conceived in the form of a simple undecorated semicircle; the other in front of shrine No. 5 consists of two small rectangular steps, placed one on top of the other.

PILLARS, ALTARS, DOOR- AND WINDOW-FRAMES

The whole row of rock-excavations is hewn from the local laterite rock, with the exception of the detached cult-images, which are made of basalt-stone.

None of the pillars, altars, walls, door and window-frames bear any decoration. All of them are plain. Pillars and altars are carved in severe block- or beam-form, being devoid of bases, shaft and capitals. This kind of austere plainness seems to be due to the extremely rough and porous configuration of the local laterite, which apparently did not provoke ornamentation or finely carved details.

The laterite rock in the surroundings of the cave temples of Arvalem to the west and north had been quarried for many years due to its contents of iron ore.[7]

IDENTIFICATION OF THE TWO CULT-IMAGES IN SHRINE-CHAMBERS NO. 2 AND 4

The cult-images in the shrine-chambers No. 1, 3 and 5, clearly represent *liṅgas* of God *Śiva* (Pl. XXXVI b and Pl. XXXVII a & b). The two cult images in shrine-chambers No. 2 and 4, however, still await identification.

Image in shrine-chamber No. 2 : The image in shrine-chamber No. 2 consists of a lower-most shaft-portion, inserted in the *pīṭha*, and an upper second portion, carved with three facets, visible above the *pīṭha*. The third or top-portion had been chiselled in the shape of a flat-faced disk, the rear of which is rounded off, like the second portion below[8] (Pl. XXXVIII b). Both upper portions are connected by a horizontal band, on which a single-line inscription in Brāhmī *akṣaras* of the Southern character is incised.

Inscription : A.B. Valavalikar had been the first to discover this inscription in 1927.[9] H. Heras copied the inscription in 1929 in the form of an incorrect drawing, which was read by Gadre, Curator of the Watson Museum at Rajkot, as : *Sacipura ca sirasi*. He translated it in the following way : "*On the top of Sacipura*."[10] P. Pissurlenkar accepted this reading, which renders no meaning, by re-publishing the faulty eye-sight copy of the inscription of H. Heras in one of his works on the inscriptions of Goa.[11]

It was only G.S. Gai and K.V. Ramesh who read this important (but unfortunately badly defaced) inscription correctly when re-investigating it in 1964. They deciphered the inscription as :

"*Sambaluru-vāsī Raviḥ*"[12]

Translated, this verbless sentence means : Ravi, the resident of (the) Sāmba-town. G.S. Gai and K.V. Ramesh's reading indeed results in an acceptable meaning. For Ravi, one of the many synonyms of the Sun-God, is mentioned several times in the *Sāmba-Purāṇa* as resident of a town, founded by *Sāmba*, the son of Lord *Kṛṣṇa*, who smitten with leprosy was healed by the Sun-God after taking resort to him. Upon having been healed, he is supposed to have installed an image of the Sun-God, *i.e.*, erected his shrine at Mitravana on the banks of the river Candrabhāga, and to have built a town, named *Sāmbapura*.[13]

According to some later Purāṇic passages and local traditions there were several places of sun-worship, all built by *Sāmba*. H.V. Stietencron names some of them : Mūlasthāna, *i.e.*, modern Multan in Pakistan, Kālapriya on the banks of the Yamunā river and the sun-temple of Konārka (Konarak).[14]

All three places are situated in the North of the Indo-Pak-Sub-continent. *Sāmba-l-ūru*[15] (=*Sāmba-pura*) near Arvalem, however, is located further down the South and seems to be the first *Sāmba*-town, which so far has come to light at the west-coast of India.

The mention of a *Sāmba*-town in the ancient cave-temple inscription of Arvalem at the same time raises the question, whether there are indeed any appreciable remains of an ancient town in or near Arvalem, containing a temple with an image of the Sun-God. Although we must admit that we found no traces of ancient houses or shrines in the immediate vicinity of the cave-temples at Arvalem, there certainly exists the possibility that the inscription may refer to the old town of Kudnem, situated a few kilometers to the southwest of Arvalem.[16]

In the ancient nucleus of Kudnem, about 300 meters to the east of the present-day village of Kudnem, we surveyed in 1964 :

1. an old temple-platform, built of large laterite slabs, on which we found a small image in high relief of the Sun-God;[17] and
2. another temple, today containing no cult-image, a few meters to the west, the *garbha-gṛha* portion of which is still standing ;
3. besides we photographed and measures 7 small shrines on the plateau of a small hillock to the northeast of old Kudnem which apparently commemorate the demise of some important personality of the region.[18]

We date the *Sūrya* image, the temple-ruin with its preserved *garbha-gṛha*, as well as the memorial monuments approximately to the tenth century A.D.

Particularly the cult-image of the Sun-God is of great interest. It not only represents the most ancient icon of *Sūrya*, so far found in Goa, but proves in addition that the worship of the Sun-God had some tradition in the surroundings of Arvalem and that its cult had been introduced by people from the North. For this Sūrya still wears the breast-armour and apparently also the *avyaṅga*[19] around his waist; moreover boots cover his feet.

That this old town still had been intact during the time of the Goa-Kādamba Kings, is proved by the gold-coins of these kings, which according to the information of P. Pissurlenkar, occasionally have been washed out from the earth during the monsoon. The kings of the Goa-Kādamba dynasty are placed by scholars in the tenth to thirteenth centuries A.D.[20]

Hence, there remains a gap of several centuries to be bridged between the oldest extant remains of the town of Kudnem and the ancient Arvalem-inscription. It is, however, not improbable that more ancient relics might come to light, if excavations of some of the mounds near the two ancient temples are carried out, which today are overgrown with trees and shrubs.

Image in shrine-chamber No. 4 : The second cult-image in shrine-chamber No. 4 displays the outlines either of a spearhead (*śakti, śūla*) or of a chisel (*ṭaṅka*), sunk vertically into the *pīṭha* (Pl. XXXIX a).

It is carved with a pointed head, below which two indentations have been cut. A prominent ridge concludes the upper portion. Like the disk-topped cult-object in shrine-chamber No. 2, the lower part consists of a three-faceted portion and the whole object appears flattened towards the front, the rear-side being rounded.

At first sight the object under discussion reminds one of the spearhead, placed vertically in front of the standing *cāmara*-bearing goddess on the reverse of some gold-coins of Kumāragupta I (A.D. 415-455) of the *aśvamedha*-type.[21] Yet, if one compares both objects minutely, doubts turn up. For although the spearheads on the coins of Kumāragupta I do have the same dents at their mid-waists, like the object in cella No. 4 of Arvalem, their tips are much more pointed than the one of the cult-image at Arvalem. Hence, the former are clearly characterized as sharp-cutting weapons, whereas the latter with its roundish point is not.

The second possibility to be taken into consideration, is the form of a chisel, placed in an upright position. It recalls to mind the *Makuṭāgama*, a text quoted by T.A. Gopinatha Rao, according to which "*Daivika Liṅgas*" may have the shape of a *ṭaṅka* (chisel).[22] However, *ṭaṅkas* were apparently thought of as very similar in form to the *śūla* or spear. For the author quotes this weapon in addition, right afterwards.[23]

Viewing the cult images of shrine-chambers No. 2 and 4 together it strikes one that both, the disk-headed and the pointed idol, flank a clear *liṅga* in their midst, and that they on their part are framed by two more obvious *liṅgas*, placed in the side-shrines.

All five cult-objects are housed in individual shrine-chambers and must have been regarded as cult images, because with the exception of the one in shrine-chamber No. 1, they could be circumambulated. This synopsis leads us to assume that both objects, the disk-like and the pointed one, represent two subordinate aspects of *Śiva* : *Śiva* in his sun-aspect and *Śiva* or *Rudra* in the aniconic guise of a harming pointed weapon[24] in *liṅga*-form.

Possibly we have in Arvalem thus an aniconic forerunner of the *Śiva-Mārtaṇḍa-Bhairava* nexus,[25] which in later times becomes clearly manifest in iconic cult-reliefs of anthropomorphic form. M.T. de Mallmann in her treatment of the *Agni-Purāṇa* rightly remarked that the description of the composite deity : *Mārtaṇḍa-Bhairava*, as quoted in the *Agni-Purāṇa*, harmonizes with none of the extant images; the only ones which might have agreed with the description, the reliefs of *Mārtaṇḍa* in Kashmir, either having disappeared or being badly mutilated.[26]

In the region of Goa itself, we could not find any anthropomorphous cult-images of *Śiva* as *Mārtaṇḍa-Bhairava*. Nevertheless, some of the guardian deities and *kula-puruṣas* in the form of upright posts with round-headed and pointed tops, perhaps may have their roots in the famous duo-set of Arvalem.

In the course of our two years' survey of the art and architecture of Goa, we found several such idols. Among them are :

1. The two post-like images in the open-air shrine of *Bhūtanātha* on the plateau of a hill above Pernem in North-Goa (Pl. XXXIX b). They are not associated with a *liṅga*, *i.e.*, they are placed next to each other. But both of them are installed in a common *pīṭha*, which indicates *pūjā*-ceremonies being done to them.

   One demonstrates a pointed head, the other a roundish one. The people of Pernem reckon them among the *grāma-devatās* and partly still implore their protection against illness and evil spirits.

2. The so-called *Pūrvācārya*, the first Brahmin teacher of the village, which we photographed in the *garbha-gṛha* of a temple of *Śiva-Mahādeva* at Siolim-vāḍā (*Morjim*, Taluka of Pernem), forms another example (Pl. XXXIX c).

   It is installed in a basaltstone-*pīṭha*, placed on a high laterite socle. Its top-portion is even more pointed than the one in shrine-chamber No. 4 at Arvalem. Like the latter it had been placed to the proper left side of the *liṅga* of God *Śiva*, the main object of devotion in this temple.
3. Other such *kula-devatās* or guardian-deities in post-form with rounded and pointed tops, partly being furnished with human facial features, we found either in small individual shrines, affiliated to temples of the main deities of the village or outdoors at the borderlines. They are sometimes called : "*Dāḍh*", "*Moḷdo*" or "*Girobā*".

Summarizing all evidence of the cult-images of Arvalem, it seems certain that the five-celled multi-chambered layout of Arvalem belonged to a cult-centre, dedicated to the worship of *Śiva* as main deity.[27]

Whether it ran under the name of *Pañcaliṅgeśvara*, the Lord of the five *liṅgas*, we do not know, the ancient name of the site not having been handed down to posterity. Against such an assumption speak some *Pañcaliṅgeśvara*-shrines in Tuḷu-nāḍu. In the latter, all the five *liṅgas*, of almost identical shape, are installed and revered on one common *pīṭha*, instead of in five separate shrines."[28]

APPROXIMATE DATE OF THE CAVE-TEMPLES OF ARVALEM

What is the approximate age of the cave-temples of Arvalem ? We believe it may be deduced from three different sources :

—Firstly, from the palaeographic character of the short label-inscription,

—secondly, from the shape of the *liṅgas* and the incised lines, marking them, and

—thirdly, from architectural elements.

1. *Palaeographic evidence* : The author of the passage on the cave-temples of Arvalem in Indian Archaeology, 1965-66, dated the label-inscription to the late sixth century A.D.[29] To the first half of the same century, F. Kielhorn assigned the "Tāḷagunda pillar inscription of Kākusthavarman",[30] incised actually during the reign of Śāntivarman, the successor of Kākusthavarman.[31]

According to recent research, however, Śāntivarman has been dated by G.S. Gai to the years A.D. 430-450 and his father Kākusthavarman to A.D. 400-430[32].

We feel that both inscriptions, the one of Tāḷagunda and the one of Arvalem, both incised on the same medium, *i.e.*, on stone, are closely similar in script and hence do not seem to be far off in age. For in both, the *akṣara ra* still shows considerable elongation of the vertical, whereas the *vi* is formed exceptionally small, so that in fact the former *akṣara* (*ra*) occupies more than twice the length of the *vi*.

Because, however, some of the *akṣaras* of the Tāḷagunda-inscription, like the *ra* and *ka*, are incised in an angular fashion in their bottom curves—besides being of the box-headed variety and characterized already by an ornamental appearance, especially noticeable in the volutes of the medial *i* and *ī*—we provisionally date the less ornate label-inscription of Arvalem somewhat earlier than the Tāḷagunda inscription of Śāntivarman of ca. the years : A.D. 430-450.[33]

2. *Shape of the liṅga and its sūtras* : A second possibility for roughly dating the caves of Arvalem, is offered by the *liṅga* in shrine-chamber No. 3. We chose it for comparison as the best example of all three *liṅgas* in shrine-chambers No. 1, 3 and 5, because it may be seen from top to bottom, the *pīṭha* having been cut open, thus exposing the inserted *liṅga* in its full length (Pl. XXXVII b).

It consists of a cone-shaped top portion, measuring 48 cm in height, and of a more or less squarish lower portion of 58 cm height (Pl. XXXIX d). The polished top portion is incised with two lines which at the rear encircle the *liṅga* and in front meet in an acutely pointed peak, almost of the form of an ogee arch (A small lozenge tops the joint).

These are the so-called *pārśva-sūtras* or side-lines, mentioned in the *matsya-Purāna*.[34]

What is missing in the *liṅga* of Arvalem, however, as well as in the two other *liṅgas* in the shrine-chambers No. 1 and 5, are the two parallel vertical lines, issueing from, or joining the pointed peak of the *pārśva-sūtras* and running down the front of the *liṅga*. The author of the relevant passage in the *Viṣṇudharmottara-Purāṇa* called these lines : *brahma-sūtras*.[35]

Both kinds of incised lines, *Pārśva-* and *brahma-sūtras*, are already present in the only exactly dated *liṅga* of God *Śiva* of the time of the Gupta kings, namely in the one, found at Karamḍamḍa (District Faizābād, U.P.), dated by an inscription to the year of the Gupta Era 117 (=A.D. 436) (Pl. XL a)[36]. The *pārśva-* and *brahma-sūtras* of this important dated *liṅga* apparently constitute reminiscences of the realistic, *i.e.*, three-dimensional representation of *liṅgas* of early time.

One of the oldest and the most important of this group is the *liṅga* of Guḍimallam, in front of which the anthropomorphous image of God *Śiva* himself had been carved (Pl. XL b).[37] In this early *liṅga*, datable roughly to the first century A.D., the nut of the erect phallus (*ūrdhva-retas*) projects well beyond the shaft. The outlines of this part of the Gudimallam-*liṅga* are represented in *liṅgas* of later time by the above mentioned *pārśva-sūtras* (Pls. XXXIX d and XL a).

The three-dimensionally conceived vertical ridge of the Guḍimallam-*liṅga*, joining the triangle of the nut, turned into the parallel *brahma-sūtras*, which on *liṅgas* of later time were merely marked in the way of graphic lines (Pls. XL a and XLI b).

The *liṅgas* of Arvalem and Karamḍamḍa both belong to this later stage of the development of the *liṅga*. They are already conceived in a highly abstract manner. For nut and shaft have merged to form a common silhouette, now resembling a roll or cylinder. The demarcation of the nut from the shaft is now only faintly insinuated by the graphic lines of the *pārśva-sūtras*.

Nevertheless, despite these common features, the Arvalem and Karamḍamḍa—*liṅgas* do not seem to belong to quite the same time. We date the Arvalem-*liṅga* slightly earlier than the *liṅga* of Karamḍamḍa, on account of the missing *brahma-sūtras*.

In this feature, the Arvalem-*liṅga* resembles the *liṅga*, carved in relief on a stone-fragment in the Government Museum of Mathurā, which J.M. Rosenfield assigned to the reign of Huviṣka, one of the great Kuṣāṇa-kings.[38] Also this *liṅga* is devoid of the vertical ridge, leading into the nut (Pl. XLI a).

But because the nut of the Kuṣāṇa-*liṅga* is still carved somewhat three-dimensionally, *i.e.*, projecting slightly beyond the shaft, it is certainly older than the *liṅga* of Arvalem. Hence the latter should be placed later than the *liṅga* of Kuṣāṇa-time, in a relative chronology, but somewhat earlier than the one of Karamḍamḍa (=A.D. 436).

Another argument for dating the *liṅga* of Arvalem earlier than the Karamḍamḍā-*liṅga*, is the shape of its lower portion. For it is still conceived in a squarish way, while the one of the Karamḍamḍā-*liṅga* displays an octangonal shape.

Both *liṅgas*, the one of Arvalem and the one of Karamḍamḍā, represent a stage in the *liṅga*-development, which is still characterized by bipartition of the *liṅga*-shaft. It is only the *liṅgas* of later time, which are divided into three shaft-portions (*bhāga*). According to the author of the corresponding passage in the *Matsya-Purāṇa*, the uppermost, round part is called : *Pūjya-bhāga* or *Rudra-bhāga* (this is the only portion of the *liṅga*, visible above the surface of the *pitha* and to this shaft-portion *pūja* is being done); the middle or octagonal shaft-portion is named : *Viṣṇu-bhāga* and the square lowermost part : *Brahmā-bhāga*.[39]

One more observation which calls for a slightly greater age of the Arvalem-*liṅga*, is its tapering and conically carved upper part. A similarly conceived conical *liṅga* is installed in the central shrine of the *Śiva*-temple at Chennittalai (central Travancore);[40] another *liṅga* of the same type is depicted on a seal, excavated at Basarh.[41]

The two last named *liṅgas* may be assigned to the earlier Gupta time, *i.e.*, to the end of the fourth century A.D. They seem to have been created somewhat earlier than the Arvalem-*liṅga*, for they are still carved in a more realistic manner, *i.e.*, with plastic details.

In contrast to the slender conical *liṅgas* of Chennittalai, Basarh and Arvalem, the upper part of the *liṅga* of Karamḍamḍā is more thick-set and its top had been flattened already, ushering in a trend, which was to grow even stronger in the *liṅgas* of the sixth and seventh centuries A.D.

One of these later examples with a strongly flattended head, represents the *liṅga* in the Śaiva cave-temple No. 1 at Bādāmi, which may be dated to the last quarter of the sixth century A.D. (Pl. XLI b).

Summarizing we may say that a date somewhat prior to the Karamḍamḍā-*liṅga* of A.D. 436 seems to be justified for the *liṅga* of Arvalem, *i.e.* ca. the first quarter of the fifth century A.D.

2. *Architectural evidence* : A further observation which points to about the same time, is supplied by some details of the rock-cut architecture of the cave-temples at Arvalem.

There is for instance the strikingly irregular intercolumniation of the pillars of the facade of cave-temple No. 5 and to a lesser degree of the one of the verandah in front of shrine-chambers No. 1 to 4, providing large and narrow openings, which calls for comment. This is a characteristic feature of many temples, erected in the North during the reign of the Gupta kings.[42]

Then there is the deeply sunk moulding on the top of the facade to shrine chamber No. 5 which recalls to mind the same sunk and simple moulding above the portico of temple No. 17 at Sāñchi, M.P., datable to the first half of the fifth century A.D.[43]

Finally the plain undecorated semicircle of the stepping stone in front of shrine-chamber No. 3 at Arvalem resembles two identical ones, serving as stepping stones on both sides of the platform to the structural temple of *Śiva* at Mukundarra (Rajasthan), of earlier Gupta time.[44]

In the light of the above discussed evidence, a date in the first quarter of the fifth century A.D. seems to be justifiable for the rock-cut cave-temples of Arvalem.

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1. Also in other parts of India, rock-cut cave-temples of some age are often associated with the five *Pāṇḍava*-brothers by the popular local tradition.

   Thus for instance the five-celled cave-temple of Pallāvaram (Chingleput District) is called by the Hindus of this region : "*Pañchapāṇḍava-malai*". (Vide : Srinivasan, K.R., *Cave-Temples of the Pallavas*, New Delhi, 1964, p. 51).

   The same name is given even to one-celled cave-temples, as seen in the case of the temple of Dalavanur (South Arkot district). It is dedicated to *Śiva* and contains a *liṅga*. (Vide : Longhurst, A.H., *Pallava Architecture, Part I, Early period, MASI.*, No. 17, Simla, 1924, p. 12).

   According to Leshnik, L.S., (*South Indian "Megalithic" Burials, the Pandukal Complex*, Wiesbaden, 1974, p. 3) the "Pandukal cists", belonging to the so-called "Megalithic" Burials, are thought of as the homes of the five *Pāṇḍavas*.
2. Lopes Mendes, A., *A India Portuguesa*, Vol. II, Lisboa, 1886, p. 18.
3. Heras, H., *Pre-Portuguese Remains in Portuguese India, JBHS.*, Vol IV, No. 2, Bombay, 1932, p. 3.
4. Roberto de Souza, *As Cavernas de Arvalem Investigacão Arqueologica*, in : O Heraldo, Panaji, 13.12.1953.
5. Sideboards in solid block-form have been preserved in the slightly older cave-temples No. 6 and 4 at Udayagiri, M.P. However, these contain no depressions in cup form. (Vide our second book on the Art during the time of the Gupta kings, which is to go to press soon).
6. The *Pīṭha* does not seem to have been finalized. For : the hole (śvabhra) in the centre of its surface, which was to receive the *Liṅga*, had been started only; deep grooves mark its four sides; the center portion, however, had not yet been removed. Nevertheless, the groove in the floor of the *garbha-gṛha* for channelizing off the sacrificial fluids and the vessel-like pans on the cupboard in the niche of the north-wall are proof enough, that *abhiṣeka*-ceremonies played an important role at that time. (Interestingly enough, they were supplied prior to the installation of the *liṅga* in the *pīṭha*.
7. Under the directorship of Shri M.N. Deshpande, the cave-temples of Arvalem not only have been cleaned from destructive forest growth, but conserved at a precarious state. Among other measures the mining operations were brought to a halt by the Archaeological Survey of India in the immediate vicinity of the cave-temples.
8. According to H. Heras, this cult-image "is known in the neighbourhood as *Śripada Borco*" (Heras, H., *op. cit.*, p. 4).

9. Valavalikar, A.B., *Gōecaranchi Gōeanbhaili Vassannuc*, p. 17, quoted by Pissurlenkar, P., in : *Goa hā 1500 anos*, O Oriente Portugues, No. 6, Bastora, 1934, p. 391.
10. Heras, H., *op. cit.*, p. 4.
11. Pissurlenkar, P., *Goa hā 1500 anos, subsidos epigraficos para a sua historia*, O Oriente Portugues, No. 6, Bastōra, 1934, pp. 391-392.
12. Gai, G.S., *ARIE*, 1965-66, No. 39; *IAR*, 1965-66, Delhi, 1973, p. 61, No. 6; Ramesh, K.V., 'Four stone Inscriptions from Goa,' *EI.*, Vol. 37, part 7, 1970, p. 282; Gune, V.T., *New Era*, Vol. II, No. 8, Panaji, 1966, p. 15, No. 7.
13. Stietencron, H.V., *Indische Sonnenpriester, Sāmba und die Śākadvīpīya-Brāhmaṇa*, Wiesbaden, 1966, pp. 125, 126, 170, 192, 217, 279.
14. Stietencron, H.V., *Ibid.*, p. 279.
15. *Sāmba-l-ūru* is the equivalent in Kannada of the Sanskrit *compositum* : *Sāmba-pura*. *Ūr*, meaning "an inhabited place, a village, a town", (or *uru*,) here apparently has been suffixed to *Sāmba*, the first word of the compositum, ending in the vocal *a*, by means of the euphonic *l*, to prevent the hiatus.
16. Pissurlenkar, P., was the first to associate the town, named in the inscription of Arvalem, with the nearby Kudnem. He, however, deduced the incorrectly read "*Saci*", the first word of the compositum, from "*Sezo*", which is supposed to form a part of the village of the present-day village : Kudnem. (Pissurlenkar, P., *op. cit.*, p. 392).
17. Vide : fig. 19 in : Gune, V.T., *Ancient shrines of Goa, a pictorial Survey*, Panaji, 1965.
18. Pissurlenkar, P., *op. cit.*, plate opposite p. 392.
19. Stietencron, H.V., *op. cit.*, pp. 264-267. (The *avyaṅga* according to the description in the *Bhaviṣya Purāṇa* is the cast off skin of *Śeṣa* (*Bhāgavata Purāṇa*, I, 140, 40, 40f.)
20. Moraes, G.M., *The Kadamba Kula, A History of Ancient and Mediaeval Karnataka*, Bombay, 1931, pp. 168, 210.
21. Altekar, A.S., *The Gupta Gold Coins in the Bayana Hoard*, Varanasi, 1954, pl. XXX, Nos. 9-12.
22. Gopinatha Rao, T.A., *Elements of Hindu Iconography*, Vol. II, Part I Reprinted at New York, 1968, pp. 83-86.
23. *Ibid.*, p. 86.
24. *Rudra's* spear is described in the third book of the *Mahābhārata as paṭṭiśa* (Vide : Hopkins, E.W., *Epic Mythology*, reprint : Varanasi, 1968, p. 225).
    According to Sir M. Monier-Williams' *Sanskrit-English Dictionary* (Oxford 1899, 579) *paṭṭiśa* : may be a spear with a sharp edge or some other weapon with three points.
25. The author of the passage on the cave-temples of Arvalem in the *IAR*, 1965-66, Delhi, 1973, p. 106, suggests "*a Śiva—Kārttikeya—Sūrya* nexus" for this triad.
26. De Mallmann, M.T., *Les enseignements iconographiques de l 'Agni-Purāna*, Paris, 1963, p. 105.
27. The popular legend of the Arvalem-region attributes the *liṅga* in the large shrine-chamber No. 5 to "*Dharma*" (=*Yudhiṣṭhira*), the eldest of the five *Pāṇḍava*-brothers, the pointed icon in cella 4 to Arjuna, the disk-like one to Bhīma and the two remaining *liṅgas* to *Nakula* and *Sahadeva*. (R. de Souza, *op. cit.*, p. 4).
28. Gururaja Bhatt, P., *Studies in Tuluva History and Culture*, Kallianpur, 1975, p. 290.
29. *IAR.*, 1965-66, Delhi, 1973, p. 106.
30. Kielhorn, F., *Tālagunda Pillar Inscription of Kākusthavarman*, in Epigraphia Indica, Vol. VIII, Calcutta, 1905-06, pp. 24-36, p. 31.
31. Sircar, D.C., in : *Select Inscriptions bearing on Indian History and Civilization*, Vol. I, Calcutta, 1965, p. 474, assigns this inscription correctly to the reign of Santivarman, fifth century A.D.
32. Gai, G S., *Early Kadamba Chronology*, in : *JOR.*, Vol. XVII, Madras 1947-48, p. 42.
33. Kielhorn, F., *op. cit.*, plate opposite page 32.
34. *Matsya-Purāṇa*, edited by Apte, H.N., Poona, 1907, chapter 263, p. 538, *ślokas* 19 a and 20 a.
35. *Visnudharmottara-Purāṇa*, Third Khanda, edited by Shah, P., Vol. I, Baroda, 1958, p. 205, *sloka* 5.
36. Konow, S., *Karamḍamḍā Inscription of the reign of Kumāragupta* (*Gupta-*) *Samvat* 117, *EI.*, Vol. X, Reprint : New Delhi, 1960, pp. 70-2.
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40. Gopinatha Rao, T.A., *op. cit.*, pl. V, fig. 1.
41. Bloch, T., *Excavations at Basarh*, in : Annual Report for the year 1903-04, A.S.I., Calcutta 1906, pl. XL, fig. 2.
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42. Cunningham, A., *ARASI.*, Vol. X, *Tours in Bundelkhand and Malwa in 1874-75 and 1876-77*, Reprint : Varanasi 1966, pl. XVI, No. 1 (groundplan of cave-temple No. 1 at Udayagiri, M.P.) and No. 4 (groundplan of temple No. 17 at Sanchi).
43. *Ibid.*, pl. XX.
44. Viennot, O., *Le Temple Ruine de Mukuṅdara, entre Mālwa et Rājasthān*, in: South Asian Archaeology, 1973, edited by V. Lohuizen-de Leeuw, J.E., Leiden 1974, fig. 60.

XXVI

A Royal Memorial to Chalukya Vikramaditya II

M.S. NAGARAJA RAO & K.V. RAMESH

In Karnataka, monuments of the early Chālukyan period are found in clusters in and around Badami, Aihole and Pattadakal. Some of them are under worship and were meant to be so. Outside these groups, no other monuments were known, until the decorative *toraṇa* was located recently at Itgi, in Raichur district.[1] Uptill now, no temples or other structures of funerary character were identified thus far. Recent discoveries in the vicinity of the village, B.N. Jalihal adds a new dimension to the architecture of the early Chālukyan period.

Bhadra Nayakana Jalihal (B.N. Jalihal) is about 5 kms. west of Pattadakal. To the west of the village is U-shaped valley formed by the red sand stone hill range. A ribbon-water fall from a perennial spring adds to the idyllic setting. In this valley locally called *Huligevvanakoḷḷa*, a cluster of eleven red sand stone shrines and a large rock-shelter were located by Sundara.[2] The shrines were built at different heights, the largest found at the bottom of the valley. Within the rock shelter, itself was the representation of Brahma, Vishṇu, Maheshvara, and Saptamātrikas in bold relief (all of which are painted recently). A small shrine facing east, within the shelter has an interesting female deity. She has two hands, holding sword and shield. She is richly decorated with ornaments. What is interesting is that she has wings and an owl rests to her left. The attributes of this deity closely corresponds to *Bhūtamāta* described in *Vishṇudharmōttarapurāṇa*. Three other sculptures noteworthy in the vicinity are two of *lajjagauris* and one *nāgarāja* who can be identified as *anaṅta* or *Vasuki* (Pl. XLIII c). We may also note in passing that there are a couple of monolithic votive shrines, cut into blocks of stone, with *śikhara* motifs.

Of the eleven shrines located at different heights of the valley, five of them (except the main one which is the subject of our study), have a sanctum and a front porch. Above the sanctum is a *nāgara śikhara*. Seven of the eleven have a *liṅgam* in the sanctum sanctorum.

The main shrine at the foot of the hill, flanked by two smaller shrines, consists of a *garbhagriha* and an *ardhamaṅṭapa*. It stands on *ādhiṣṭhāna*, but does not have a *śikhara* or superstructure. On the top portion of the wall, just below the eaves is a floral festoon design (Pl. XLII a). The shrine is facing north and has an ornamental entrance, flanked by two royal *dvārapālas*, with regal parasol over their heads. They rest each of their hands on a mace. At the base of the door jambs are *Śaṅkha nidhī* and *Padma nidhi* (Pl. XLII b-c). The lintel above has the representation of Umāmahēshvara reclining on the bull, Nandi (Pl. XLII d).

The entrance to the *gārbhagriha* has the representation of the river goddesses, *gaṅga* and *yamuna*. On either side of the door jambs are carved sculptures in relief Gaṇēśa, Mahishamardini and two male devotees with flower baskets. The sanctum has a *liṅgam*.

One of the most interesting feautures is the occurrence of an inscription in three lines, to the right of the left dvārapāla, as we enter the shrine. The epigraph in 8th Century Kannada characters reads as follows :

1. *Svatthi (sti)* Srī-Vikramāditya—Satyāśriyā (ya)**
2. *Dēvāriya mā (ma) ganu Benamma Kara(ṁ) ḍada*
3. *Paradana kesida dharmmav-akke** (Pl. XLII a).

It means, "Be it well. This is the casket (Karamḍa)—like structure of the illustrious Vikramāditya Satyāśraya. The pious work (is) of Benamma, the son of Devāri".[3]

Though the inscription bears no date, it could safely be assigned to the middle of the eighth century A.D., and hence the ruler referred to therein is to be identified with Vikramāditya II A.D. (733-744). Benamma was probably the architect, who probably constructed this shrine. From the epigraphical evidence associated with Chālukya Vikramāditya II, it appears that this simple shrine, is a memorial shrine of the said King. If that be so, the two smaller shrines, near this shrine could be identified to be the memorials of the two queens of Vikramāditya II, viz., those of Lōkamahādēvi and Trilōkya-mahādēvi.

The identification of this group as royal memorial is confirmed by further evidences around the structures. Just behind the main shrine is a memorial carved in three registers, on a natural rock in a style similar to the famous hero stones known from all over Karnataka (Pl. XLIII b). The lower register shows three bullocks, two in moving posture, and the third one lying down. The middle register has a hero and two ladies being escorted by a fourth figure. The top register has royal personage seated in the middle flanked by two female figures. The representation of reclining bull appears to represent journey's end, *i.e.*, the end of life. The middle register depicts the journey to heaven, and the top one attainment of heaven. Such representations of unyoked bullocks representing the journey's end is known from early buddhist settlements in Karnataka. Ramesh has already referred to a similar memorial stone from Belavadgi in Gulbarga district, dating back to 2nd-3rd Century A.D.[4] Another slab from Jewargi represents a memorial to the merchant Vira and his wife (Pl. XLIII d). There are also examples of *Chhāya sthaṁbas* from Nagarjunakonda.[5] Therefore, we may not be wrong in assuming that this memorial representation is probably that of Vikramāditya and his two queens, particularly as the carving is located just behind the main shrine. The smallness and simplicity of the shrines in the valley also indicate that they were not really meant for worship. They may have been the memorials to the kith and kin, and officers of the King. The monolithic votive shrines in the rock shelter also indicate probable periodic offerings, suggesting ancestor worship.

The sculpture of *dēvi*, corresponding to *Bhūtamāta*, further suggests that the location was probably the grave-yard of the royalty, of which she was the presiding deity.

That the tiny valley with the rock-shelter and monuments was intimately connected the Vātāpi Chālukyas is clearly borne out by the relief sculpture of the *Saptamātrikas*, to whom the Chālukyas attributed their phenomenal raise into an imperial power.

There are at least two more similar location which could be associated with Chālukyan memorials. Siddhanakolla near Aihole has also the features noted at Jalihal. Aralitirtha, near Badami, also indicated the occurrence of such sculptural representations at a later period.[6] Therefore, it is probable that Chālukyan rulers selected valleys with water falls or streams where they caused the erection of memorials.

The identification of the structure at B.N. Jalihal as a memorial shrine of Vikramāditya II will have wider ramifications as to their significance elsewhere in the far east. In erecting such memorials to Kings, whether the Kings were deified or not will have to await further research. However, the idea of deifying a King was known very early in India, and the King was considered to be god himself. Bhasa's *Pratimānāṭaka* refers to the *Pratimagriha* in which the statues of Daśaratha and his ancestors were conserved. Near Mathura, was a unique example of a structure which yielded headless portraits of Kushana Kings, Wima Kadphesis and Kanishka. Nearer home in Tamil Nadu, there are several instances of funerary temples called *Paḷḷipaḍai* Koils erected over the mortal remains of dead Kings,

Princes, as also images, perhaps portraits of Kings. queens and other royalty, as attested by the Chōḷa inscriptions of 10th-11th Century A.D.

Farther away, in South East Asia, Indian idea of royal funerary temples was elaborated and got integrated into an aristocratic cult, known as the cult of Devaraja.[7] The royal memorial of Vikramāditya II at Jalihal is probably the earliest memorial to be identified; and, evidence is as yet too meagre to say whether this cult had become as complex in Karnataka as the later Devaraja cult in South east Asia. But the subject gains in interest in the light of the fact that Karnataka too had played a significant role in the early overseas colonisation as is well borne out by a comparative palaeographical study of early inscriptions from Karnataka and South east Asia.[8] We believe that the present paper will open an entirely new field of enquiry, at least in so far as the study of the Early Chālukyan monuments is concerned.

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XXVII

Reassembling an Early Calukya Vaisnava Temple at Badami

GARY MICHAEL TARTAKOV

The chronology and development of the monuments of the Early Calukyas has been a controversial topic for nearly a century. There are now roughly 140 identified Early Calukya temples in Karnataka and Andhra, though only about a third of these have been published in generally accessible works. Having visited and studied most of these structures, I have tried in three previous articles to provide both a general outline for such a chronology and a detailed analysis of the temple that can be securely assigned to the first phase of this development, the century preceding the Pallava destruction of Bādāmi in A.D. 642 (*Śaka* 564)[1]. In the following discussion I wish to add another structure to that list of the earliest of surviving stone temples in South India.

THE FRAGMENTARY REMAINS OF A DRAVIDIAN VIMĀNA

Located on a southerly spur of the North Fort, at Bādāmi, half way up the path from the tank, are the remains of a *sandhara jati-vimāna*, usually referred to misleadingly as the "*lower Śivālaya*". Though its broken state has left it difficult to study, without visiting the site, enough of this structure does remain to offer a clear idea of its original form and to place it into the artistic development of the Early Calukyas, who rose to prominence by the fortification of this same hill, in the first half of the sixth century.

The fragmentary *Vimāna*, like the Malegitti Śivālaya, lower down and further west on the hill, is located on the peak of a boulder outcrop, as the architectural pinnacle of a natural formation. It rises at the center of a site (Pl. XLIV) that extends little more than a single bay-width on all four of its sides. It is the *garbha gṛha*, second *tala*, and *śikhara* of what was a *dvitala sandhara* temple in the Karnaṭaka Dravidian style. Its *śikhara* is an eight-sided dome, blossoming into a *hāra* of eight miniature *kuṭa*—a *pañjara* in the center of each cardinal side and a *karṇa* on each corner. Its upper *tala* (Pl. XLV) is four sided and articulated to represent a *parivārālaya* of eight structures—a square-domed *karṇa kuṭa* on each corner and a keel vaulted *śāla kuṭa* in the center of each side. The lower-most story is the exposed *garbha gṛha* wall, on which are depicted pilasters, lintels, and a *ghanadvara*. The broken stones at the top of the first story are the remnents of the ceiling slabs of the circumambulatory, that formerly surrounded the structure at the ground level.

This structure contains several particularly noteworthy features, in relation to the other Early Calukya structures of the Dravidian style. One is its unique incorporation of an *āmalaka* finial, in the *stūpi* of its otherwise thoroughly Dravidian design. Though a mixing of Northern and Southern style features occurs regularly in the architecture of the Calukyas, on individual temples as well as among separate ones, this is the only occurance of an *āmalaka* on a Dravidian *śikhara* of a functional temple. The combination occurs elsewhere as a decorative motif. Unlike the other Early Calukya temples with octagonal *śikhara*, this dome has a large floral from overlaying its peak, symbolically supporting the *stūpi* above (Pl. XLIV)[2]. Like the other Early Calukya temples with octagonal *śikhara*, but unlike all other Dravidian style

structures, the *śikhara* here has its corner (or diagonal) *nāsikā* expanded into (or replaced by) three-dimensionally massive *karṇa kuṭa*. These forms, which K.R. Srinivasan has appropriately called "applique *kuṭas*",[3] give these temple towers characteristically massive and compact profiles, which (however attractive they may appear) confuse the distinction between the *śikhara* and the *tala* below, and possibly for this reason were not employed elsewhere. The *nidhi* which occupy the *karṇa kuṭa* (Pl. XLVIII) appear to be plaster additions of a later time. Most unusual, and intriguing, however, is the missing lower walls of the structure. The outer *sandhara* could have extended no more than an equivalent of its existing width on any side, *including the east*. Thus the site seems to lack the room necessary for a *maṇḍapa* of the proportions normal among other Calukya structures of this scale.

There are five surviving Early Calukya temples which had octagonal *śikhara*, two of which bear a close resemblance to this fragmentary *vimāna* at Bādāmi. For a variety of reasons, which I have discussed in detail elsewhere,[4] the other four of these structures seem to be creations of the second phase of Early Calukya architectural development, that followed the dynasty's resurgence in A.D. 654-655 (*Śaka* 576) under Vikramāditya I and continued into the middle of the eighth century. They are characterized, in contrast to the temples of the first phase, by the use of Ganga and Yamuna imagery, the use of *haṁsamālā* and *bhutamālā* beneath caves courses, and a variety of other features not found in caves or other temples that can be definitely dated to the first phase. The structures that most resemble the exterior of the fragmentary *vimāna* are the twin temples at Mahakuṭa, the Mahakuṭeśvara and Mallikārjuna Temples, of the middle of Vijayāditya's reign, *c*. A.D. 720 (*c. Śaka* 632).[5] The others are the somewhat earlier Nagnatha Temple of Nagral[6] (whose *śikhara* is missing, above the *grīvā*), and the somewhat later Malegitti Śivālaya. Along with the other Karnaṭaka Dravidian *vimāna* with square and round *śikhara*, the five octagonally-domed *vimāna* show a consistent development in which the *śikhara* (dome) is progressively reduced in proportion to the *vimāna* (tower) as a whole, and rendered more decoratively complex and linear, by the compounding of its decorative details.[7]

Among those temples with octagonal *śikhara*, the fragmentary *vimāna* is the simplest and least developed of the series. Its *śikhara* is the largest in proportion to its overall size, and its *tala* is the most simply articulated. Its second *tala* has a *pada* (or pilastered-wall elevation) that covers half its height, and is divided into panels at only two levels (projected *kuṭa* and recessed *harantara*). The others, by contrast, have developed or elaborated variations of these simple elements. Their second *tala* are divided into *pada* and *vedī* sections, their central, *śala, kuṭa* are projected a compounded two levels, or in the case of the latest of the series, the Malegitti Śivālaya, all of the horizontal divisions of the first and second *tala prastara* are compounded.

The surviving structure is a *garbha gṛha*, buried in the risen ground-level of the site. The available plan (Pl. XLVI b) is therefore incomplete. (There is a strong possibility that a more complete plan and possibly the basement elevation will be found, once the Archaeological Survey excavates the full *adhiṣṭhāna*, which likely exists beneath the present ground level.) On the interior (Pl. XLVI a) the temple's *piṭha* remains, though it too is buried up to its rim by an, apparently raised, stone flooring. This altar has an oval outline, with its runoff to the (standard) north. It is decorated in floral and geometric patterns that echo the decorative patterns of the caves, though they are unique among Calukya altars, which are usually left plain. The emplacement at its center is semi-circular, above, and square, below, which demonstrates that it was meant to take a figurative image, rather than a *liṅga*. Its common local designation, "Śivālaya", is a result of the fact that the region's population today is overwhelmingly Śaiva and thus tends to use the term 'Śivālaya' generically, to refer to any temple whose affiliation is not clearly otherwise.

The structure's doorway (Pl. XLVII) resembles that of the *garbha gṛha* of the Vaiṣṇava temple at the top of the Fort. It is composed of progressively receding, concentric *śākhā*, that are not joined into a wall-flush box at its foot, or articulated by a *lalāṭa biṁba* at its lintel center, above.[8] These *śākhā* are decorated with continuous bands of flower blossoms and waving foliage, framed by a plastically curving lotus petal border, inside a band of pearls. These are all courses typical of the earliest phase of Calukya art, seen in the caves of the South Fort. Its other interesting feature is the unique use of the isolated *bhūta* at the base of the doorway, on each side. The *bhūta* on the south is unfinished, which suggests

the possibility that the temple may not have been entirely completed, when it is joined with other unfinished elements, that are mentioned below.

The one pillar incorporated in the structure, as it stands today, is a plain octagonal shaft with a square base and a square block near its top (Pl. XLV). It is finished roughly and was possibly intended to receive further refinement. Another half-pillar, built into the temple's northwest corner as a pilaster, is a fragment of a more standard square type that can be fully reconstructed (Pl. L a) on the basis of what survives in it and other fragments (see Pl. LVI a and b).

The fragments of lintels (Pls. XLIX and LII) show lavish decoration of continuous freizes of gamboling *bhūta*, surmounted by a raised band of the bean and diamond pattern. Both of these motifs are characteristic of the first phase of Early Calukya art, seen on the Vaiṣṇava temple above and in the caves. Panels of *bhūta* are found at later periods, of course, but only in the earliest phase are they found in long, uninterrupted freizes or on interior lintels.

ASSOCIATED FRAGMENTS

There are a number of fragments at the site and scattered up and down the adjoining path that can be recognized as belonging to the broken *vimāna*, on the basis of close congruence with its design and the lack of any other structure from which they might have come. These fragments fit into and amplify what can be seen on the structure itself.

On the ground next to the *vimāna* are broken remains of a wall panel bearing a square *kuṁbha*-capitaled pilaster, in bold relief (Pl. L b). Beside it are also the fragments of a beautiful sixteen-faceted pillar, rising from an octagonal base and carrying a magnificent round *kuṁbha* capital and inverted lotus abacus (Pl. LI a). The pillar's decoration includes the diamond and bean pattern and that pearl swags, depending from *kīrtimukha*, within a design close to that found on the two other Early Calukya examples of round *kuṁbha*-capitaled pillars, which are found in Cave III (Pl. LI b) and Cave I. Built into the rubble wall surrounding the site is a section of exterior wall eaves, lacking *haṁsamālā* or *bhūtamālā*.

The most interesting lintel fragments are the panels of *Kṛṣṇa Carita* reliefs, reused by later builders in the construction of the gateway in the path below (Pls. LVI a-c and LVII a-b). Though sections of these have been published in several places, their relation to the fragmentary *vimāna* has usually gone unnoticed,[9] and in one case they have been mistakenly cited as coming from the caves.[10] The best preserved panels represent (Pl. LVI a) *Vāsudeva* and *Devakī* in prison, the exchange of the babies, the attack of the bird demon, butter churning, the killing of *Putanā*, the destruction of the *Yamalārjuna* trees, and the destruction of the cart (*Śakaṭadura*) (Pl. LVI b) the killing of *Pralaṁba*, *Kuvalayapīḍa* (in elephant form), and *Dhenuka*, and the *Govardhandhāraṇa*; (Pl. LVI c) the killing of *Keśin*, the *Kāliya-damana*, and the *Ariṣṭavadha*. The less well preserved panels represent (Pl. LVII a) *Kṛṣṇa* and *Balarāma* battling with the wrestlers *Muṣṭika* and *Canura*, and their ultimate confrontation with *Kaṁsa*; (Pl. LVII b) scenes that show *Viṣṇu* or *Kṛṣṇa* mounted on *Garuḍa* approaching a figure that seems to be an elephant, and so possibly the *Pārijātaharaṇa*, and associated battles. All of these scenes occur in the caves, and most of them occur on the Vaiṣṇava temple, above, as well.[11]

The largest and furthest travelled of the temple's broken lintels is the 3.1 meter fragment showing 18 *bhūta*, now in the Prince of Wales Museum (Pl. LIII a-b). It has previously been identified in the museum both as coming from Aihole,[12] and as resembling the *bhūta* panels found in the Bādāmi caves.[13] Besides matching the design of the *bhūta* panel fragments on the *vimāna*, it matches their dimensions precisely.

The two remaining fragments to be considered are the large figure panels built into the walls of the gateway on the path (Pls. LIV and LIV a). The closed lotus petal and pearl frames of these panels match the frame of the *vimāna's* doorway, and the style of their depictions and decorations are in accord with the early period of its construction. Each represents a four-armed male deity accompanied by dwarfish attendants. The more finished of the two (Pl. LIV) shows a stocky figure of what appears to have been intended to become a *Harihara*. (Its unfinished state makes it difficult to be certain.) The figure's headress seems to have been prepared for the skull and moon of *Śiva's jaṭā* on its (proper) right,

while it is left smooth on the left. The figure stands in a stiff, planar *tribhaṅga* pose, its natural left hand resting on a knot of its lower sash, in a manner characteristics of the *dvārapāla* of Cave II (Pl. LV b) and of the north Deccan art of the sixth century in general. Its decorative belts and loops of jewelery are intertwined intricately, and also like the art of the caves, it wears an ankle-length *vanamālā*, with a *śaṅkha* ornament at its bottom. It holds a *dhaturā* (?) flower in its natural right hand. Its second pair of hands are upraised, apparently supporting dwarfish *āyudha puruṣas*. The one on the left (*Viṣṇu*) side may stand for the *śākhā*, while the one on the right has a small *triśūla* in its headband and may personify *Śiva's triśūla*. The figure below also holds a *triśūla*. The other panel is too unfinished to make any definite determination, beyond the fact that it represents a four-armed, male deity, and that it was apparently a pair of the first. The two would have stood along with a third panel on the exterior of the *sandhara* wall if the contemporary Vaiṣṇava temple is any guide.

CONCLUSIONS

Reassembling the architectural, decorative, and figurative fragments of the ruined *vimāna* of Bādāmi's North Fort, we find a Vaiṣṇava *sandhara* temple of the Dravidian style from the first phase of Early Calukya art. That is, one of the few structural temples that can be placed, along with the inscribed Meguti of A.D. 634-635 (*Śaka* 556), and the rock-cut monuments of the sixth century, into the century preceding the destruction of Bādāmi and the eclipse of the dynasty's fortunes in A.D. 642 (*Śaka* 564). It is thus one of the earliest substantial remains of a *vimāna* exterior in South India or the Deccan. If we reject the conventional ascription of the *rathas* of Mahābalīpuram to the reign of Narasiṁhavarman I Māmalla (A.D. 630-668) and rather attribute those temples to the reign of Narasiṁhavarman II Rājasiṁha (A.D. 690-728/9) this fragmentary structure is the earliest surviving example of a *jati-vimāna* in the Dravidian style. Which is to say, it seems to be the earliest surviving example of a multi-storied temple tower composed in the form of a central shrine ringed by garlands of peripheral (*parivārālaya*) shrines, in a three-dimensional representation of the metaphysical model presented in the *vāstupuruṣa maṇḍala*.

A last point of interest that may be considered here is Sri K.V. Soundara Rajan's suggestion that the damage done to the North Fort's Vaiṣṇava temple was the result of Māmalla's victorious conquest of the site.[14] Though all Early Calukya temple remains have suffered some sort of decay over the twelve to thirteen centuries since their creation, the two structure on the North Fort at Bādāmi do show the effects of a particularly direct destruction. In the case of the upper temple, the porch and two walls of the *maṇḍapa* have been broken away. In the case of the fragmentary *vimāna*, the entire *sandhara* as well as the porch and any possible *maṇḍapa* have been lost. Considering the strategic location of the structure, on a promontory of the hill, adjoining the main pathway leading to the fort above, the suggestion that the damage we see there to day may be the result, however accidental, of the fierce assault by which Narasiṁhavarman took the fortifications of Bādāmi can hardly be overlooked. This is the very hill whose fortification represented the Calukyas original claim to sovereignty. The boulder bearing the Tamil inscription left by Narasiṁhavarman, calling the Pallava the greatest of kings, stands opposite the entrance to this pathway up the fort. And it can hardly be doubted that this was the site of the major assault on the hill.

So even in its damage, the broken *vimāna* may bear testimony to the history of the Calukya *rājās* responsible for its creation. Its very existence is most likely owed to the military success and consequent wealth of Pulakeśin II, the greatest warrior of his time, who expanded the military control of the Early Calukyas over all of the Deccan, defeating Harṣa in the north and the Pallavas in the south. The temple's destruction was possibly the result of that same power, coming in the counter attack of the Pallavas, in which Māmalla earned his proud title, *Vāṭapi-koṇḍa*, the conquerer of Bādāmi.[15]

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11. Those in the caves are reproduced in R.D. Banerji's *Basreliefs of Badami, Memoirs of the Archaeological Survey of India No. 25.* Most are discussed in *The Butter Thief*, an unpublished doctoral dissertation at Harvard University, by John Stratton Hawley.
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13. Chakravarti, S.N., *A Guide to the Antiquities of the Historic Period, Prince of Wales Museum of Western India*, Bombay, 1958, p. 23.
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XXVIII

An Early Western Chalukyan Durga Temple at Bachinagudda

B.V. Shetti

In recent years quite a number of scholars have written about temples of early Western Chālukyas. Most of these temples were known to us in some way or other. But very few have discovered new temples of this period. Dr. A. Sundara of Karnāṭaka University, Dharwar is an exception in this respect, as he has brought to our notice a few new temples belonging to the period of the Bādāmi Chālukyas. Among them is a dilapidated temple at Bachinagudda (so called because of the shape of the hill nearby) about a kilometer from Paṭṭadakal.[1]

The temple (Pl. LVIII a) is situated at the southern end of the hill on the bank of the Malaprabhā river facing east. As the temple is away from the main road hidden behind the hill, it seems it was not noticed earlier. Besides this there is also a temple of Rāṣṭrakūṭa period on top of the hill.

This early Chālukyan temple originally consisted of a *garbhagṛha*, *ardha-maṇḍapa*, and *mukha maṇḍapa* with *kakṣāsana*. The *śikhara* of the temple has fallen off. At present, only the *ardha-maṇḍapa* has survived, which is completely white-washed with lime. The stone slabs, some with carvings, belonging to the temple are lying scattered all round. Among them is lintel with dancing *Śiva* (Pl. LVIII b) which indicates that the temple was of Śaivite origin. Though the sculpture is much abraded, it indicates the vigourous movement of the *Naṭarāja*. Seated attendants on either side are shown playing musical instrument.

Inside the *ardha-maṇḍapa* are two loose sculptures of *Mahiṣāsuramardinī*. The details of one is hardly visible, as it is covered with thick coat of oil and dust. The other is a fragmentary image, where only the bust of *Mahiṣāsura* in human form has survived (Pl. LVIII c). To the left side of the image a portion of one of the legs of *Mahiṣamardinī* wearing *pādasara* is seen. The image of *Mahiṣa* is very powerfully portrayed. He holds a sword (which is broken) in his right hand, and a circular shield in his up-raised left hand. He wears an armour on his chest. His hair is tied in a bun and some of the hair-locks fall on his shoulder. One of the horns is clearly seen on the left. He wears a decorated necklace, arm-lets and bracelets. The horned head is turned to his right side in the act of attacking the *Devī*. Nose is broken. Such robust and awe-inspiring images of *Mahiṣāsura* are rare in Indian Art. Comparitively, the image of *Mahiṣāsuramardinī* also must have been quite impressive. But unfortunately it is missing at present. In front of the temple lies a loose figure of a lion, the *vāhana* of *Mahiṣāsuramardinī*. From these objects one can surmise that this temple was dedicated to the goddess *Durgā*.

In the early images, right from the Kuṣāṇa period, *Mahiṣa* is shown entirely in animal form of buffalo. His body, sometimes partly and sometimes almost in human form is depicted only from eighth century onwards. This indicates that the temple under discussion cannot be dated earlier than eighth century A.D.

The central ceiling slab of the *ardha-maṇḍapa* has the representation of *Viṣṇu* reclining on the serpent bed of *Ananta* (Pl. LIX a). This representation is similar to the one at Konti-guḍi No. 1 and the ceiling slab from Huchchappayya-guḍi at Aihole, but is on a smaller scale. *Brahmā*, seated on a lotus issuing from the navel of *Viṣṇu*, is not depicted in this sculpture. Here Viṣṇu is resting his head on his right hand. His legs are crossed. *Madhu* and *Kaiṭhaba*, the demon brothers, attacking *Viṣṇu* are also depicted. The other ceiling slabs with *Brahmā* and *Śiva* are now missing.

At the outer doorway on either side is depicted a *dvarapālikā* (female door-keeper) standing in *tribhaṅga* pose holding a *chāmara* (fly-whisk) in her hand (Pl. LIX b and c). In most of the early Chālukyan temples only *dvārapālas* (male door-keepers) are shown. The supple body and the stance of these *dvārapālikās* are charmingly represented. In one of their raised hands a *chāmara* is held and the other hand is in *Kaṭyāvalāṁbita* (resting on waist) posture suitably reversed for symmetry. The hair is arranged into a bun. Slender waist and not too broad hips add grace to these female figures. The faces are much abraded. The presence of the *dvārapālikās* at the door instead of *dvārapālas* also proves that the temple was dedicated to the goddess *Durgā Mahiṣamardinī*. It may be noted here that the *Koṭikala-maṇḍapam*[2] and the *Draupadīratha* at Mahabalipuram, both dedicated to *Durgā* have *dvārapālikās*.

The doorway is plain and simple.

From the style of the sculptures and architecture the temple may be dated to the second quarter of the eighth century A.D.[3]

REFERENCES

1. On reading a short note published by Dr. Sundara in Kannada about this temple, I visited the place in March 1978. See Sundara, A., "*Kelavu Ichina Gamanārha Purātattva Shodhanegalu*", *Karnātaka Bhārati* (Kannada), Vol. 9, No. 4, 1977. pp. 83-84.
2. Srinivasan, K.R., *Cave Temples of the Pallavas*, New Delhi, 1964, p. 109, Pl. XXI, Figs. B & C.
3. The author acknowledges the courtesy of Mrs. Susan Buchanan from Ohio, U.S.A. for the supply of photographs illustrating this article.

XXIX

*The big Sukanasa of Udayesvara Temple at Udayapur, Madhya Pradesh**

Eliki Lascarides-Zannas

In the heart of Madhya Pradesh, about 50 miles N-E from Sāñchi, in the tehsil of Basoda and out of the way, lies Udayapur[1], a small village of about 3000 inhabitants, once an important strong-hold of the powerful dynasty of the Paramāras of Mālwā, as is testified both by inscriptions and archaeological remains in the village.

On the higher and most prominent part of the village on a beautiful *jagatī* (terrace) lies an imposing structure, the Udayeśvara (Pl. LX a) temple. It consists of a *garbhagṛha* (sanctum), a *gūḍhamaṇḍapa* (closed hall) with three *mukhamaṇḍapas* (porches) and a number of subsidiary temples, presumably seven, plus a low hall called the *vedī*.

The temple is built of a fine grained hard red sandstone, which was quarried in the hill closeby. But the quarry was apparently exhausted in ancient times by extensive building activities which continued during the Mohammedan occupation of the city. So today for the repairs of the temple, the blocks have to be transported from elsewhere. The stone has deep veins of cream colour, being used skilfully by the *sūtradhāras*, specially on the *śalilāntaras* (recesses) of the *jaṅghā*, but also elsewhere.

Though big and heavy, the two main parts of the structure have such admirable proportions, that it has no appearance of clumsiness. It is the extraordinary achievement of the *sūtradhāras* which was realized by means of perfect balance of forms, volumes, and juxtaposition of horizontals, verticals, squares and triangles. The temple anticipates a very agreeable and rare surprise to the student of Indian temple architecture. It is dated in the most irrefutable way. A beautiful Sanskrit inscription, incised on an horizontal stone slab, is imbedded in the wall, on the left of the entrance to the eastern porch of the *gūḍhamaṇḍapa*, which supports the left *kakṣāsana* of the east porch. The chronology is precise. *Saṃvat* 1137, the seventh *tithi* of the bright half of *Vaiśākha*. The corresponding year is A.D. 1080. There are three important points of the inscription for us : the date, mention of the king Udayāditya, this being the first dated inscription in his name, and the purpose, which is the hoisting of the flag, meaning the consecration of the temple.

* Shri M.N. Deshpande has been the main person connected with my work in Udayapur providing me all facilities, with his well-known generousity. It is with a particular pleasure that I am giving this first-ever published article of my work in Udayeśvara as a tribute to him.

My thanks are also going to Dr. B.K. Thapar, Shri Krishna Deva, Dr. Debala Mitra and Sardar Raghubir Singh for their help. I really don't thank them all for only the permmissions to work in the temple, but the confidence shown to me in allowing me to live in the godown near the temple, the kindness, the warmth, the encouragement I always received from all of them, during the three years I was in and out of Udayapur. For all that I am deeply grateful. To Dr. C. Sivaramamurti, I owe the work I have undertaken in Udayapur. He insisted that I should study Udayeśvara and it is his confidence in me (as some years back the confidence of Prof. F.D.K. Bosch who insisted I should write "Khajuraho") which was the source of courage at difficult moments when privation were not spared during my long stays in Udayapur. I owe to all of them my greatest experience of Indian Art and Religion.

In a paper, read at the All India Oriental Conference in Ujjain in October 1972,[2] I explained at length my reasons for not accepting the additional date of A.D. 1059 stated by various scholars, as being the year Udayāditya ordered the building of the temple. Though the aim of our present study, is neither the History and Chronology of the Paramāras, nor that of the temple, precision as to its exact date is important. The *śukanāsa* and its splendid sculptures bear the exact chronology of A.D. 1080 and not twenty years earlier. In comparing them with other Paramāra sculptures, their precise chronology is important.

In October 1972, I had based my theory on a long cross-checking study of Inscriptions of Paramāras and dynasties connected with them by friendship or enemity. (The Chālukyas of Kalyāṇī—the Chaḷukyas of Gujarat—the Kalachuris and even the Hoysaḷa Ereyaṅga). I have not been able to locate the famous inscription mentioned by Cunningham as following "while another inscription assigns to him the building of the magnificent Udayapur temple in V.S. 1116, A.D. 1059 a period which coincides exactly with that which I have already assigned to the King of Chedi".[3] But Cunningham had never seen the inscription; it came to be known by an impression, sent by Eng. Capt. Burt in early 1840, to the Asiatic Society of Bengal. It was then studied, translated and published by a Pandit.[4] But only the *translation* came to be known and was published without any commentary. Nor was the text ever published. Dr. D.R. Bhandarkar gives us finally this important information : "We know that this inscription is in *vernacular*, speaking of the Paramāra Udayāditya as having built a temple of *Śiva*, is a much later record".[5]

Nobody around me including Dr. H.V. Trivedi, who is publishing the royal Paramāra Inscriptions in E.I. had any hint as to where this inscription was located. Finally after weeks of searching in Spring 1973, I located it in the interior of the temple in a dark corner. It is a very long inscription, incised in a very shallow way. Its impression caused problems to the team of the A.S.I. The first impression taken during October 1973 was not successful, the reading was difficult. The second time in March 1975 Mr. Peshwani of Bhopal Circle, after several attempts, has been able to produce a satisfactory imprint, which we handed over to Dr. H.V. Trivedi, with the hope that he will publish it. Any-how, what is already known, is that the inscription is in vernacular, bears two dates V.S. 1562 and *Śaka* 1427 which corresponds to A.D. 1505. And is neither a royal inscription, nor can it possibly be related to any historical person. But more than that, Udayāditya is mentioned, amongst 440 Kings "of *Bhārat*", whose deeds are enumerated and it is stated that in V.S. 1116 he built "a *Śiva* Temple". Which one ? And where ? No precise information is given. We know the connection of Udayāditya with other Paramāra sites e.g., at Un, where there is an inscription of his. The *sarpabandha* one in the temple Chaubera Dhera I is also attributed to him. *Śiva* temples were the most popular under the Paramāras, so the mention of a *Śiva* temple connected with the Śaiva king Udayāditya, is a very vague statement. Part of this "bogus" seem to include some Sanskrit lines.

Cunningham's romantic assertion[6] about Udayāditya "a legend connects the *Rājā* and the spot", is also far from being accurate. In fact, the temple is connected with the king by more than a legend. Besides the inscription giving the temple's date, we have another one, stating that the king Udayāditya excavated a tank at a place known as Udayāpuram (a place governed by the epithet *Udaya*). The inscription mentions at the end, "that these verses were engraved by the mason Dhīradeva, brother of the mason Madhusūdana". The style of the letters and the incision are identical with the dated inscription and in a way, it forms one body though it is seperately carved and comprises 7 lines. The dated inscription has 6 lines. It definitely appears to be the same inscription, in which some more praises of the king were added. Since the above inscriptions have not spared praises to the king, then the question arises why mention was not made, that he had built this temple to the glory of *Śiva* ! I have already suggested in my earlier paper,[7] that the temple could have been started by King Bhoja himself, but because of his constant struggle with the Kalachuris, the structure remained unfinished. His successor Jayasiṁha's reign was dramatic and lead to his sad end. So Udayāditya would have been the first ruler to be in a position to complete it. Nowhere in the debris, in the remains or in the sculptures collected in Museums, have I come across Paramāra Sculptures of a higher quality. This is one of the reasons, I am inclined to believe that only a selected group of *sthapatis* working for the great "*esthète*" and "*connoisseur*" that King Bhoja was, could have produced such sculptures of high quality in the second half of eleventh century

while as we know well, that we are in North India, beyond the culmination period and the quality in general is deteriorating. Besides the Bhōjaśāla at Dhār, the Bhijamaṇḍala at Vidisha and the unfinished Bhojpur structure, there is no temple of such imposing dimensions and at the same time. so balanced in proportions, built by the Paramāras.

It was, but natural that through the centuries, legends would substitute actual historical facts which were so recorded. Besides the legend which connects the building of the temple with the dreams of Udayāditya's queen and his swallowing a serpent, related by Cunningham[8], another one tells us how the temple escaped demolition by Aurangzeb, which is also a miracle considering that no Paramāra temple (to my knowledge) had the chance to escape with relatively so little damage as at Udayapur.

The legend says, that *Śiva* himself appeared in Aurangzeb's dream and threatened him with death if he dared to demolish his temple. Aurangzeb found himself stricken with high fever, which was obviously to him a tangible proof of *Śiva's* great power. Terrified, next morning he ordered to stop the demolition. This legend or another one, but certainly an unusual happening, is the answer to the exceptional preservation of the temple, as can be seen. In fact demolition work must have started. The building of the Moslem prayer hall, the demolition of a number of the subsidiary temples testify to this. I would add, that a number of sculptures in the lower niches are missing or mutilated.

Studying the temple, and walking around I had great difficulty in distinguishing the sculptures on the great *śukanāsa*. There was no angle from where one could see the whole composition. It puzzled me. How was it possible that the most important sculpture of the God was not to be seen by his devotees? And it must have been even more hidden when the *saṁvaraṇā* roof of the *gūḍhamaṇḍapa* was intact. It is very clear that all the bell shaped elements had small *Kalaśas* which they lost and only the square or rectangular holes, on which they were fixed, are remaining (Pl. LX b). When they were intact as well as the central finial of the *saṁvaraṇā* roofing, it must have been impossible to distinguish from the courtyard the sculptures of the *śukanāsa*. I have failed up to now to give answer to this. To hide the main image of the God is certainly not an accident for *sthapathis* known to be most of the time supervised by priests. We do have numerous temples in South India, Orissa and North India (*e.g.* Paṭṭadakal, Ālampūr, Mahānandi, Satyavolu, Saṅgameśvara, Paraśurāmeśvara, etc.), with a big *chaitya* in front of the main *śikhara* in which a dancing *Śiva* is housed. But, he is always very well seen even from a distance. Of course, the front hall has a rather flat roof, but even the pyramidal *mukhaśālā* roofs of the Orissa temple do not obstruct the sight of the main God's principal human sculpture. We know that in the *garbhagṛha* we do not have a sculpture of the God but only the *liṅgam*, his symbol.

It is a fact that when we think of Khajuraho, it is in terms of sculpture. Each temple in Khajuraho is a magnificent piece of sculpture. In Udayapur, architecture is predominant. The temple is conceived, thought, realised as an architectural entity. Sculpture plays a secondary role. Predominance is given to volumes, lines, and their inter-relation as already mentioned.

As soon as one steps on to the so-called courtyard, which in fact, is a big lofty and quite high *jagatī* (terrace), what strikes one is the balance of volumes, which must have been handled by a skillful *sthapathi*. The vertical and horizontal lines have been used in a masterly way. The best examples are the beautifully carved tall *latā* (spines) which are starting after the *varaṇḍikā*. But by means of the projection of the *bhadras*, the niches on the *bhadras* and those on the *pīṭha*, the vertical line, the spine which we call *latā*, is carried from the *pīṭha* upto the *grīvā*, and this feature is one of the main characteristics of the *Bhūmija* style, which in Udayapur reaches its perfection (Pl. LXI a).

The three *latās* facing North, West and South start just after the *varaṇḍikā* (cornice) with a prominent sculptured medallion, within a large *chaitya*-window called *śūrasenaka* coming out of the mouth of a *grāsamukha*. A multi-armed *Śiva* seated or dancing is housed in the medallion. These *latās* terminate in *grīvā* by a *grāsamukha*.

The harmony is carried out also on the eastern facade of the *śikhara*. But the architectural setting is different and the *latā* has to be adapted. It also runs among middle of the eastern surface of the spire. But at its start point we have to deal with the existence of the *antarāla*. Here the *śūrasēnaka* takes immense proportions, as it has to provide a structural and architectural link, between the imposing pyramid

which forms the upper part of the *śikhara*, and the massive *saṁvaraṇā* roof (bell-roof) of the *gūḍhcmaṇḍapa* (Pl. LXI b). We now have a *śukanāsa* which in fact is no more as the *śūrasēnaka*, an architectural decorative element, but a structural necessity as it provides a superstructure to the *antarāla* (vestibule) and aesthetically fills the gap between the two masses.

Developed, the *śukanāsa* is a trefoild element (Pl. LXII a) an enormous *chaitya*-window, which gives a magnificent opportunity to the artist, to glorify the God to which the temple is dedicated, the mighty *Nāṭyeśvara*.[9] He has done it in a masterly way. The other difference in this whole *latā* is that it does not end with a *grāsamukha*, but with the bust of *Śiva*.

The *śukanāsa* is the most ornate part of the whole temple. Besides the beautiful multi-armed dancing *Śiva* in *ūrdhvajānu*, the very graceful Godesses *Pārvatī* and *Sarasvatī* also dancing and the syncretic *sthānamūrti*, it has given to the artist the possibility of expanding around, the complicated iconography of the *Mātṛkas*, which we have already met in the small niches in the upper-most beams of the three doorways of the *gūḍhamaṇḍapa* as well as on that of the *garbhagṛha*. But we have to consider that all this lies at a height of about 18 metres.

With the help of two tied up ladders, I climbed on the roof of the *gūḍhamaṇḍapa* and reached its central highest point from where one has a total view of the whole composition of the *śukanāsa*. I sat breathless. It was not a sculptural composition, but a terrific orchestration. Up there, at about 20 meters of height, *Śiva* was dancing practically in the air. The fourteen-armed God was carved in the round, detached from the background and in fact carved on a separate slab. The big highly ornate *chaitya*, coming out of the enormous *grāsamukha* mouth, plays the role both of the background and the frame. But the frantic rhythm of the cosmic dance, cannot be subdued to a frame. The artist succeeds in communicating this feeling. The head with the high *makuṭa* dominates the vertical line of the torso, which brings balance to the rotation of the fourteen arms of the God (mostly badly mutilated) (Pl. LXII b) He dances in *ūrdhvajānu* the left leg uplifted and is accompanied by two female chauri-bearers and four musicians. The lower part of the bodies of the musicians at his right have disappeared and only a flute can be recognised. On his left, under his lifted and bent leg, two other musicians are seated. One of them has lost head and torso. In the hands of the second a broken *vīṇā* can clearly be seen. At his right, behind the head-dress of the chauri-bearer easily recognizable is the tail of a snake, the only attribute which has survived.

As mentioned earlier, we are familiar with the representation of dancing Śiva mostly in *chatura* or *ūrdhvajānu* housed in the *chaitya* window of a temple in front of the *śikhara*. And this, independently of styles and areas. From Aihoḷe, Paṭṭadakal, Mahākūṭeśvar following the Tungabhadra, we reach its *saṅgam* with Krishṇā were are the Eastern Chāḷukya temples (Ālampur, Saṅgameśvara, Satyavolu, Kodavalli, etc.). It goes toward North upto the Mahānadi reaches Orissa. It is believed, that the dance image of Śiva increases a state of bliss and as a consequence the dancing figure of the God adorns the higher part of the facade of the temples. So it is not a Paramāra invention. But what is definitely unique is the orchestration of forms and movements we witness, in the *śukanāsa* of Udayapur. The frantic movement of Śiva's dance, is communicated down towards his right to Pārvatī (Pl. LXIII a) and towards his left to Saraswatī (Pl. LXIII b). Both the Goddesses are also carved in the round detached from the frame which is here an arc. Certainly they do accommodate their movement to this frame, but freely as it can be seen with Pārvatī's headdress which overpasses the interior line of the half chaitya. They dance both in *ūrdhvajānu*. Six handed Pārvatī carries in her lower left hand the *ḍamaru*, the middle left and her upper left an indistinct object. Her right hands are broken. A very mutilated musician dances under her right leg bent in *ūrdhvajānu*. Her *vāhana* is not visible. In the case of *Saraswatī*, the favoured Goddess of the Paramāras and specially of King Bhoja, she does retain her middle left and right hand but the attributes she carries are not distinct. Though her *vāhana*, the *haṁsa* is well preserved, as well as the musician who has lost only his legs.

One is shaken by the unbridled movement, gets the feeling that the three Gods will jump into space, the whole composition will burst into pieces. But the artist, a really inspired one saved the situation. He invented a *sthānamūrti* (Pl. LXIV a). Like a column, immobile under a canopy, he centers the whole composition, links the three rotating movements, brings the balance. By this, again the attention is

focused on the dance of *Śiva* and its meaning. He is the incomperable architect of World's Creation. By his will, all that which was not, is produced or merges into shape, disappears or merges into the void. Often we hear that *Śiva* is basically the destroyer. He actually does not destroy, but only transforms and this transformation is only for rejuvenation and for peace and prosperity of the world. He is eternally active, as there is no creation, no destruction, but only transformation. It is an eternal cycle of creation, protection and deliverance. The dance of *Śiva* is a symbol of this eternal rhythm. One could feel that the creator of this masterpiece was not merely an artist, but a great devotee of *Śiva,* who could transcribe in stone his enormous faith and communicate the message.

The aesthetic invention of the *sthānamūrti* of the composition of the *śukanāsa* is definitely a syncretic divinity.

In the mediaeval period in Northern India, such images are very often met. J.N. Banerjee dedicates a whole chapter to "Syncretic Icons".[10] He mentions the blend of *Brahmā-Viṣṇu-Śiva-Sūrya.*[11] He quotes verious texts, specially two of them interest us. "The *Mārkaṇḍeyapurāṇa* (ch. 109, v. 71)" *Brahmā's, Śiva's* and *Viṣṇu's* bodies are the same as the body of the resplendent Sun, whose real nature is three-fold indeed, may he be gracious ! The Pithamantra of one aspect of *Sūrya* described in the *Saradātila-Katantra* means 'Adoration to *Saura* (an unusual way of calling Sūrya) who is the base of meditation, and who is one with *Brahmā, Viṣṇu* and *Śiva*', this *mantra* also emphasises the syncretic character of the worship of the Sun God". It seems that these images do not bear any specific name as e.g. *Sūrya-Nārāyaṇa,* etc. At least up to now our research has led to that. By the end of eleventh century the syncretistic ideology, is fully at work and our deity fits very well into the tendency of the period. We have no hesitation in asserting that in our case the main deity is *Sūrya* blended with *Śiva, Viṣṇu* and *Brahmā.* Besides the main face of the God, two other faces are visible and a circular halo behind his head. He wears a flat *Kirīṭa-mukuṭa,* a *dhoti* tied round the waist by a girdle (*avyaṅga*) clasped in front. The boots on his legs are visible, not only in their lower part, but also by the incision which marks the edge of them under the knees. He is eight-armed, though he has lost his two arms but most of the respective attributes of the four gods can be seen or are discernable (Pl. LXIV a); *Triśūla, padma, śaṅkha, mālā* in his right hands. The lower part of the *nāga* and the *chakra* have only survived from his left broken hands. *Daṇḍi* and *Piṅgala* are present as well as the four *vāhanas.* Two on each side. On his right, near his legs a kneeling *Garuḍa* in *añjalī* and a *Nandī* his head turned. On his left, a *haṁsa* and a headless animal with 4 legs, which most probably is a horse. So all the needed elements are present for this developed iconography of a *Sūrya* blended with *Śiva-Viṣṇu* and *Brahmā.* This syncretic form of *Sūrya* is already met in the most characteristic place of the temple. In the *lalāṭabiṁba* of the door-lintel of the *garbha-gṛha,* we do have a seated *Sūrya* blended with *Śiva-Viṣṇu-Brahmā.* The diety there, holds all the respective attributes and wears the *Kirīṭa-mukuṭa* and boots.

Another interesting feature must be noticed. The three doors leading to the *gūḍhamaṇḍapa* of the temple and that of the *garbhagṛha* have also two elaborate door-lintels with niches housing deities. We just notice that the *lalāṭa-biṁba* of the upper door-lintel houses also our syncretic deity. But the lower beam immediately on top of the doorway houses in nine niches, female divinities who are certainly to be recognized as the *Mātṛikās.* Being very high and in recesses, they have been well preserved, but are extremely difficult to study and nearly impossible to photograph. They are in the niches *Brahmāṇī, Kaumārī, Pārvatī, Indrāṇī, Mahālakṣmī* and in the recesses *Māheśvarī, Vaiṣṇavī, Vārāhi* and *Cāmuṇḍā.* I mention this because in our *śukanāsa* the iconography is repeated, at least this is what we feel.

Six niches facing East with seated deities, in a row under the base of the trefoil element of the *śukanāsa* rests. Most of them are hidden and can be seen with great difficulty, as at the central point of the structure the *saṁvarana* roof meets the body of the superstructure of the *antarāla.* So the niches are divided and separated in two groups, three on each side from the centre towards North and towards South. Only by crouching it is possible to study the four of them, which are close to the meeting point of the structures two on each side. The other handicap is that they are damaged, specially their hands, so one has great difficulty in the identification, as the attributes are missing.

The two sides of the *śukanāsa* are also decorated with five superimposed niches, receeding towards the upper part and housing multi-armed divinities of Śaiva pantheon (Pl. LXIV b). In this way the whole body of the *śukanāsa* is covered with sculptures, the quality of which are amongst the best of the whole lot in the temple. Three of them correspond to the upper part of the superstructure of the *śukanāsa*. In fact, the third forms a continuation of the belt of niches under the *śukanāsa* sort of frieze of *Mātṛikās* which ends with one niche facing South and another North. To be more clear, the seated *Cāmuṇḍā* facing South makes an angle with the *Pārvatī* facing East (Pl. LXV a). This *Cāmuṇḍā* is the only female divinity amongst the five superimposed ones on the South side of the *antarāla*. She is definitely part of the *Mātṛikās* in a row under the *śukanāsa*. We have been able to identify five out of the nine *Mātṛikās* who are surrounding the *śukanāsa* as a belt. Facing South we have *Camuṇḍā* (Pl. LXV b) with one face and twelve arms. The two upper ones are holding the *vētāla* (corpse). From her five right hands, though mutilated, one can see she is holding a *śaṅkha* (conch), a *khaṭvāṅga* (a skull-top shaft) a *khaḍga* (sword) and the two other are in *abhaya* and *varada mudrā*. From her left hands, the lower ones are well preserved and hold a *kapāla* (skull) and *mātuluṅga* (citron) which is seen carried by most deities. The other three hands must have been holding objects, of which the shafts are the only part discernable and they should be *khaḍga* (sword) and *daṇḍa* (staff). She is seated in *Lalitāsana*.

At an angle with *Cāmuṇḍā* and facing East is the first *Mātṛikā* of the row under the *śukanāsa* who is recognizable as *Pārvatī* (Pl. LXVI a). She is also seated in *lalitāsana*. She is recognizable in *varada mudrā*. From out of her five left arms are holding weapons we can identify a *ḍamaru* (small drum), a *nāga* (serpent), a *Padma* (lotus flower) and an *akṣamālā* (rosary), in her lower hand which is in *varada mudrā*. A lion is seated under her left bent leg. The four *Mātṛikās* who follow are very damaged. They all have eight arms and three of them have three faces. *Vidyādharas* are flying on both sides of their heads and whatever attributes have survived are the ones the deities of the saiva pantheon are holding without any characteristic element. They are all in *lalitāsana*.

Last towards North just on the N.E. corner and facing East is *Brahmāṇī* having, three faces and 10 arms. Her right hands are all broken and only the lower one is recognizable to be in *varada mudrā*. Her left ones are also broken but one can recognize the *ḍamaru* (small drum) and the *modaka* (sweet) which nearly all the deities are holding. She is also seated in *lalitāsana*.

Two more *Mātṛikās* can be recognized between the five divinities housed in the five superimposed niches of the North side of the *antarāla*.

Indrāṇī easily identified by her *vāhana*, the elephant, lying near her right foot, turned towards the spectator and well preserved. She has one face and ten arms. Between the surviving attributes can be seen a *vajra* (thunder bolt), a *pāśa* (noose), *kheṭaka* (shield) and a *kapāla* (skull).

Māheśvarī has also one face and ten arms, and is housed higher up in the last but one niche. In Her two upper hands are a *nāga* each. On her right a *khaḍga* (sword), a *daṇḍa* (staff), a *triśūla* (trident) and *kapāla* (skull) can be seen and on her left she holds a *kheṭaka* (shield), a *dhanus* (bow), a *Khaṭvāṅga* (club with human skull). *Nandī* is seated under her left knee his head towards the spectator. All the deities in these niches are also seated in *lalitāsana*. It is of course not surprising to have the *Mātṛikās* surrounding *Nāṭyēśvara* as they are closely connected with him and accompany him in his dance on the burial ground.

When you face the *śukanāsa* the sight of all these niches do not interfere. The foliage flows out of the mouth of the big *grāsamukha* on top and surrounds the deities. The whole composition is inscribed in a huge triangle. I had the curiosity to measure it. The base is nearly 4.50 m. wide. The interesting point is that the vertical line, from the top of the head of the *grāsamukha* to the horizontal line of the base of the triangle is of a height of 4.60 m. Of course, these measurements cannot be accurate to a centimetre though they have been taken with a mistri's plumb.

While measuring I realized that there was a slab on top of the *grāsamukha's* head not belonging to it. The *mistrī* who was helping in measuring confirmed it so, I decided to climb with the help of a rope. A big surprise was awaiting me. On the horizontal slab, crowning the superstructure of the *antarāla* and joining the *latā* to the head of the *grāsamukha* remnants of sculptures could be clearly recognized. Two lion's paws and a man's right foot (fig. 35). Photography was not even dreamable. Both the man who was helping me

and myself we were hung from a rope (a part of this rope is recognizable in Pl. LXVI b). Much later, more than a year after Mr. Peshwani of the Archaeological Survey of India, Bhopal Circle could secure the sketch we are publishing (Pl. LXVII a) with accurate measurements. So it was now obvious to me that a group of a man and a lion was missing. The slab is of 1.18 cm. long and 0.43 wide. Clearly

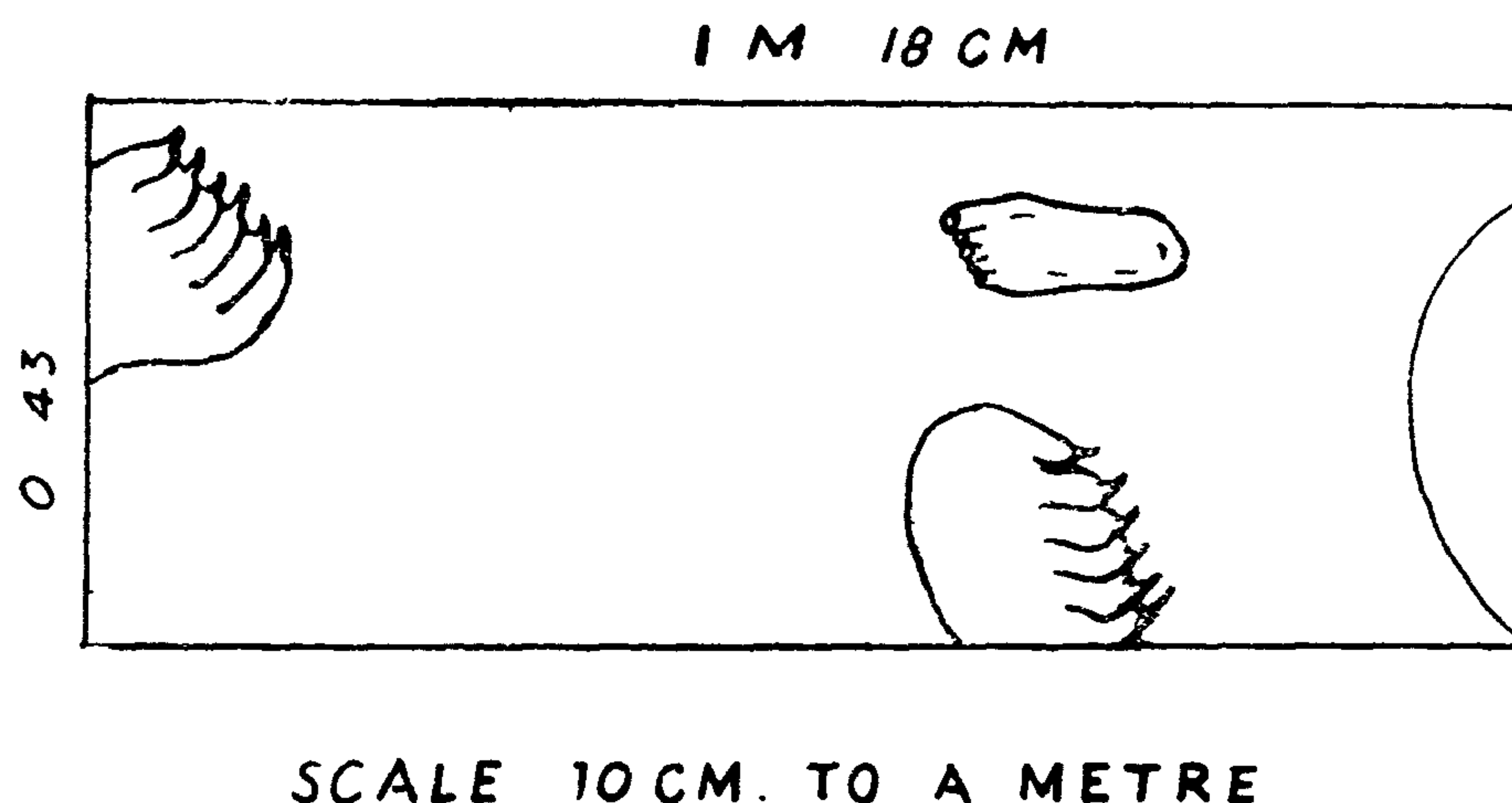


Fig. 35. Sketch of the Position and Dimensions of the remnants of mutilated sculpture.

four parts of the group have been left as a witness on the slab. The lion's paws, one man's foot and a flat stone on top of the *grāsamukha's* head probably on which the man was seated. Now that I knew their existance I could even see the lion's paw from a certain angle of the courtyard. The existance of such a group is of course not surprising. In many temples of the medieval period we meet such groups, to cite only Menal.

The block on which the missing sculptures were resting is decorated on its upper part on both South and North with *kuñjasaras*. Under the *kuñjasaras* are groups of our warriors on both sides, full of life and in action can be seen.

The problem remained to locate some fragments of the fallen group. After a long search between the big number of loose sculptures and the debris, a compensation came on 12 Oct. 1973. A pinkish stone struck my attention in one of the recesses of the *saṁvaraṇa* roof. It was the fragment of the lion's head we are publishing here (Pl. LXVII a). Three days later the torso of the man wearing a *dhoti* came to light (Pl. LXVII b) again from one of the recesses of the roof.

The torso is remarkable, though it was a piece situated at such a height and not meant to be seen it is very carefully carved as it can be noticed from the abdomen which reminds the carving of the same part of the body of the two divinities *Pārvatī* and *Sarasvatī*. Another interesting detail can be seen from the back. The right leg is advancing and this is obvious from the movement of the right thigh. The torso is clearly turned towards left in its effort probably to push the animal in front, as it is usual in these types of sculptural groups.

Our description will be incomplete if attention is not drawn to the beautiful frame of foliage animals, riders, etc. which compose the surrounding the deities frame. It flows from the mouth of the big *grāsamukha* and like a living stream, encircles giving a refined finishing touch to the whole *śukanāsa*. The basic theme is foliage. I reacted in a naturalistic way, lively not at all mechanical, which is the case of sculptures of that period, when foliage becomes dry, empty of life, a simple decorative element. The foliage creates *makaras*. One is accustomed to see the beautiful *makaras* of the Gupta period of which the body itself is a foliage. Here they are four, two on each side and give the definite impression of moving out of the foliage, or to be born from the foliage (Pl. LXVIII a). On each one a rider is keeping in his hands a *ratnaghaṭa* or *ratnakalaśa* (a pot full of jewellery) (Pl. LXVIII b). The fantastic animal

has a portuberant eye and a type of trunk. Foliage falls from his mouth and if on the lower ones it is not seen it is because they have been broken.

The whole *śukanāsa* vibrates with movement and life. This feeling is not created only by the fantic dance of our main deities. A study of all the parts of this front composition helps us to understand by which means a strong feeling of movement and life has been created. The gods are dancing. The *makaras* are moving out of the foliage. The *Apsarās* are jumping out of the mouth of the upper *makaras* (Pl. LXIX a). Higher up a headless lion with a rider is moving towards the centre. Remnants on the other side prove that a similar group must have existed (Pl. LXIX b).

Framing the cosmic dance of *Nāṭyēśvara*, five dancing musicians in the scrolls are accompanying him and completing this celestial orchestra.

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XXX

Late Pratihara Temples from Bundelkhand

C.B. TRIVEDI

Late Pratihara temples under study were discovered by the author in March, 1975. These are located in the jungle-clad area infested with wild animals. The area drained by a perennial river Orr (ancient, *Urvaśī*). The pleateau is on the verge of fertile-land of Malwa. The latter served sufficient food for the builders and devotees while the jungle-clad temples with the monasteries attached served the need for prayers and penance in peaceful atmosphere.

The ground was already nourished by the Imperial Guptas. For, during the reign of Kuma Gupta I (A.D. 415-45), *Tumbavana* (Tumain) in District Guna was the seat of his Governor. A number of architectural members, including the door-frames belonging to the period have been discovered (now deposited) in the Museum of the University of Sagar.[1] It was on the main artiery route between Mathura and Vidisha. Further east, Deogarh witnessed the efflorescence of temple architecture during the period which served the foundation for further development of architecture in the succeeding centuries. After the disintegration of mighty Pratiharas of Kanauj, sequel to tripartite struggle among the former, the Pālas and the Rāṣṭrakuṭas. In the political turmoil thus prevailed after *Mahendrapāla* (A.D. 907-08), *Mahipāla* (A.D. 914-27), (*Āryāvarta Mahārājādhirāj*) and *Vināyaka Pāla* (A.D. 931) followed in quick succession till we find *Nīlakaṇṭha* (also known *Bhūpādhipa*) in this jungle-ridden country and established a little empire, separated from the main branch. The geographical area comprised modern Districts of Jhansi, Lalitpur (Uttar Pradesh), Guna and Shivapuri Districts (Madhya Pradesh). Important rulers of this dynasty were Harirājadēva, Raṇapāladēva and Vatsarāja who are accredited with building of a number of temples, excavating tanks and other various water-works.[2] Prolific centre of Late Pratiharas of Bundelkhand exist at Deogarh (*Luachhigiri* and later on *Kīrtigiridurgā*), Burhi-Chanderi (*Girjaspaṭhikāsthana*),[3] Thoban (*Thupa-vana*), Siron-Khurd (*Siyodani*), Pachrai near Khaniadhana, Terahi (*Terambi*), Vikrampur and Badho-Pathari. Some of the places still, unsurveyed are hidden in thick forest in the river valleys. On the eastern bank of the Betwa (*Vetravatī*) and the *Dhasan* (*Darśān*) rivers, ruled the Chandellas of Jejākabhukti whose dominion extended upto *Gopagiri* (Gwaliar) and *Bhasvat* (Vidisha) on the *Mālvanadī* (also other name of the Betwa). The Chandella ruler *Dhanga* is mentioned as the subordinate (*Karda*) of the Pratihara ruler Harirājadeva.[4] These rulers like the neighbouring Kalachuris of Ḍāhala were influenced by the *Śaivāchāryas* of *Mattamayūra* dynasty who held their seat at Kadwaha (*Kadambaguhā*) about 45 km. from Chanderi, where prior to *Kachhapaghāta*, princes of the Chalukya dynasty were ruling within a small area. Thus sequel to various political currents, by the study of architecture and sculptural art, found in the region, one notices early and late features in architectural members running parallel as evident in the extent temples. In spite of the contrasts, one notices the originality in style, followed from the golden Gupta age, which shows the emergence and efflorescence of the early *Pratihara* period, resulting in the utmost simplicity in plan and restraint in embellishment in the body of the temples. Unlike the Chandellas who were nearer home, the later Pratiharas did not follow the grandeur in their architectural pursuit nor voluptuousness in sculptural art. Their monuments lie as a rule on the perennial river or water-hole not susceptible to high floods amidst the natural scenic

beauty marked by jungle growth and stone quarries where raw-material was available readily. Temples studied here are from Runwaso, Besro and Marh-Khera (Marhi Chanderi), all in Chanderi Tappa, District Guna, Madhya Pradesh.

A. TEMPLE AT RUNWASO (PL. LXX a)

Runwaso, a small village lies about ten kilometres south-west from Chanderi at the foot of the hill. The temple, is located to the west of the village near the river Orr. From here one notices a panorama of Jain temples, belonging to the Digambara Jain Community. In the group some are of late Pratihara period, now badly renovated and white-washed.

The temple facing east is Gupta in plan, consists of a square *garbhagṛha*, preceded by a small *mukha-maṇḍapa*. The *adhiṣṭhāna* is raised by means of slab-stones, over which are the *bhiṭṭa* and bevelled *Khura* mouldings. The *jaṅghā*, marked by two horizontal *paṭṭikās*, the lower relieved with *sūtra* (straight lines), and two mouldings on the top with *padma* in the centre with narrow *antarapatra*, is remniscent of the *jagati* mouldings. The *paṭṭikā* above is relieved with full and half lotus medallions (*Pūrṇa* and *ardha padmas*) and *ghaṭa-pallava* intervened by a closed rectangular diamond frieze. Above the *jaṅghā*, the *verandikā* eave is marked with *padma* and wavy decoration, plain *antarapatra* covered by *Chhādya* separately for the *garbhgṛha* and *mukha-maṇḍapa*.

It is probable that above it was a stunted *Śikhara* and *Śukanāsikā*, now missing.

Only one pillar is original on the south-east and shows square *pīṭha*, hexagonal shaft, square abacus and the capital. The other pillar is not original. Main deity and the door-jamb are missing.

When completed, it must have resembled a small shrines of Naresar (Distt. Gwalior), Batesar (Distt. Morena), Pichhala (Distt. Mandasaur)[5] and Chaturbhuj temple, Gwalior (*c.* 9th Century A.D.) which are two centuries earlier. The present shrine in view of pilaster decor may be dated to the end of 11th Century A.D.

B. DEVI MARHA BESRO (PL. LXX b)

Besro or Besra is located about 10 km. south-east from Piprai Railway Station on Bina Kotah section of Western Railway from where it can be approached via Dungasara. The village is habitated by *Nandvamsi Rajputs*.

Besides the marha, it has a dilapidated seventeen century fortress located on the Western bank of the river Orr. It has four bastions on the Corners, surrounded by an excavated moat.

The Marha lies to the south-west of the village under a tarmind tree. All around the ground is plain. The plinth from ground is raised by five courses of dry masonry to make it uniform which serves as a common platform, the other shrines which once existed are now no more. It faces north and is *tri-ratha* in plan, measures 8.70 m × 7.20 m, consists of a *tri-ratha garbhagṛha* and a *maṇḍapa*, enclosed on three sides.

The *Jagati* stands on *Kharaśila* having two *bhiṭṭa* courses and the *Khura* maulding. The *adhiṣṭhāna* consists of broad *prasara-paṭṭa*, plain *paṭṭika* with two mouldings and *antarpatra*.

The *Jaṅghā* is plain with two courses of horizontal *paṭṭikas*. The *verandikā* has a *Kūṭa Chhādya* (Fluted Chhajja), *Kapota* surmounted by the *Chhādya*. The *garbhagṛha* is covered with two to three courses superimposed, a little higher while the *Maṇḍapa* has only one course. Joints are covered with inverted *pranāla* with *makara-mukha* spouts for letting out the water.

The *garbhagṛha* is orthogonal and has three *pīṭhikas* each marked by sockets for tennoning the deities, two on either side and the third in the centre. It is approached by a doorway from *Mahā-maṇḍapa* partitioned by stele, punctuated by a *Jālaka* window (*vātāyana*, one above the other) on either side with simple bevelled doorway sculptured with *Dvārapālas* on each side in the centre.

The *Maṇḍapa* rests on eight pillars and pilasters. The three cardinal directions, viz., southern eastern and half of the northern, are marked by *āsanapaṭṭa* supported on dwarf pillars, the latter having sockets or grilled sloping balustrades (*Kakṣāsana*) with grills which were tennoned into it. One of them is lying inside the *Maṇḍapa*.

Interior pillars and pilasters are planted on *pīṭha* decorated with *Kīrtimukhas* showing *ghaṭa-pallava* motifs on the base and top figured by twin *kīrtimukhas* separated by panels, and surmounted by square cushions and cruciformed brackets. The central pillar is massive to support more than one architrave (*uttarāṅgas*) rests on the *pīṭha*. The lower shaft is square (*Ruchaka*), middle one is bevelled with *Ghaṭa-pallava* decoration on the top.

Dwarf pillars emerging from *āsanpaṭṭa* are of similar type, and instead of having square *abacus*, they have *Bhār-Vāhaka* and plain brackets respectively.

Inside the temple are sculptures of *Umāmahēśvara* seated in *Lalitāsana*, a number of sculptures lie in the heap. In the absence of any evidence, it is difficult to know as to which deity the temple dedicated. But it is certain that in addition to being a temple, it was used as a hermitage.

Its interior is plain. Stone slabs are marked with mason marks showing arrow, circlets and angles. On a pillar is inscribed *Devnāgari* script of *c.* 13 Century reading (*Ja-ra-Pa-a*) and an etching of Modha (Stool), marked by horizontal lines and crosses, probably a later addition. Further, the extension of platform in the north and south, the presence of *āmalaka* suggest the existence of subsidiary shrines. One newly white-washed shrine on its original foundation lies on the north.

The simplicity of architectural members, absence of any ornamentation the *Jaṅghā* and the style of sculptures, tending to petrification, may help us to date it to the end of 12th century or the beginning of 13th Century A.D. This temple may be termed as the last glow of the dying lamp of the Late *Pratiharas* who ruled in the western Bundelkhand region.

C. VIṢṆU TEMPLE AT MARHKHERA (PL. LXXI b).

Marhkhera, also known Marhi Chanderi is a small hamlet, located in Chanderi Tappa at a distance of 20 km approachable via Nanon through dense forest and stony land. The Orr flows from south taking northerly course. In the neighbourhood, on the escarpment are a number of rockshelters with paintings.

The Temple due to ravages of time and human vandalism is reduced to a skeleton, shorn of spectacular embellishments. When intact it consisted of *Mukhamaṇḍapa*, *Mahāmaṇḍapa* and a *garbhgṛha*. On the sinster bay the remains of *maṇḍapa* are marked by free standing pillars to support the heavy *Chhādya*. The dexter bay is missing. Of the remains, only exquisitely carved *pañcha-śākha* doorframe is standing. It is somewhat peculiar that the door of the *Mahāmaṇḍapa* was embellished while that of the *garbhgṛha* is smaller in size with restrained decoration, consisting of *sūtra* and stylised *Champaka* flower (Pl. LXXI a).

Doorframe is *pañcha-śākha*. The *uttarāṇa* portrays on the *lalāṭa biṁba*, four-armed *Garuḍāsin*, *Viṣṇu* carrying clock-wise in his hands *Chakra*, *Śaṅkha*, *padma* and *gadā* and wearing usual ornaments and *Kirīṭa-mukuṭa* flanked by *Vidyādharas* and *mithuna* figures on the ends of the jambs. The upper-panel shows the *Nāgabandha* while the upper-panels are seated *Navagrahas*. On the extreme ends are *chamardhārinī* above *stambha-śākhā*.

The *śākhās* are exquisitely carved with *patra-vallabhī*, *Nāgabandha*, *daṁpatī* or *mithuna-śākhās* carried by *bhāra vāhaka*, *stambha-śākhā* adorned with *ghaṭa-pallava* at the bottom and top with *patra-latā* (creeper) in the centre, later emerging from the *pūrnaghaṭa*. Below is shown *Gaṅgā-Yamunā* in profile on their respective mounts *makara* and *Kūrma*. holding *Kuṁbha* and standing in *tribhaṅga*, followed by the retinue of attendants consisting of a dwarf (*Vāmana*), female umbrella-bearer with an *umbrella* (*chhatra*) of long shaft, a garland-bearer and an attendant. This reminds us of the door-frame of Gargaj Mahadeva Temple at Indore and Teli-Ka-Mandir at Gwalior which are earlier in date. The door-sill shows *śrī-vṛkṣā* flanked by two attendants, holding unidentified object and the motif of lion attacking the elephant (Pl. LXXII).

The extant slender pillars (*staṁbha*) and pilasters (*Kūdya-staṁbhas*) are planted on a square *pīṭha*, having plain mouldings, octogonal shaft with plain *vēdi-baṅdha* on top, surmounted by square-cushion and the capital decorated with lotus petals (*padma-patra*). It is rather difficult to reconstruct the original shape but stylistically it is nearer to *Kachhapaghaṭa* who had the main centre at Kadwaha, once a prolific

centre of the school. Thus it may be dated to the last quarter of 11th or early 12th century A.D. The sub-shrine with its remains lying to the north east is also in ruins.

Temples described above, though in dilapidated condition, are valuable from the architectural point-of-view. Archaeological wealth of the region requires careful attention. The area up till recently was infested with dacoits who proved a blessing in disguise. For, due to their constant menace and partly by their blind religious belief, idol lifters could not penetrate into it.

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XXXI

Masilamanesvarar Temple—Tirumullavayil: An Architectural and Sculptural study

K.V. RAMAN

The city of Madras is surrounded by a number of ancient places of historical importance. One of them is Tirumullavayil which is situated in the midst of a growing industrial complex about 12 miles west of Madras. The ancient *Śiva* temple here dedicated to Masilamaneśvarar was sung by the Sundaramūrti Nayanar, the renowned Śaiva saint of 8th century A.D. This beautiful temple contains many early Chola inscriptions of 10 century A.D., belonging to Pārthivendravarma, Uttama Chola and Rājarāja Chola besides later inscriptions belonging to Kulottunga III, Rājarāja III (13 century A.D.). Of these, the early Chola inscriptions are not in their original position but built into the floor later on when the temple seems to have rebuilt probably during the 11th-12th century A.D. There are also quite a few inscriptions of Jaṭāvarman Sundarapandya II (1265) and Vijayanagar kings Harihara II, Bukka II and Devarāya II. Thus this temple teems with historical memories regarding the importance of the village, the presence of Vedic Brahmins who had the settlement around the temple and the rich patronage it received from different sections of the society.

Architecturally too, the Masilamaneśvarar temple is quite interesting. It has a large apsidal *Vimāna* from base to the top with elegantly carved pilasters and *devakoṣṭhas*. Some of the apsidal temples have square *adhiṣṭhana* and the apse portion starts only from the *grīvā* level, as for example at Polichalur near Pallavaram. But this *vimāna* is apsidal from the *adhiṣṭhana* to the *Śīkhara* like a few similar ones of the Chola period that are found at Tiruvorriyur, Trisulam, Padi, all around Madras. This type of apsidal base and *Gajapṛṣṭha-vimāna* in elevation, started even during the Pallava period as seen for example in Sahadevaratha at Mahābalipuram and the temples at Tiruttani and oragadam. This style of *vimāna* was not, however, continued by the Cholas in their territory, though it seems to have continued in the Tondaimandalam area for a longer period. This would show the existence and the continuity of local styles and norms in peripheral centres irrespective of their discontinuity in the heard of the empire. In other words, the Tondaimandalam region which was a peripheral area for the Chola empire continued to have the earlier Pallava norm in the form of apsidal temples which are, however, nearly absent in the epi-centre of the empire.

The distribution and the style of sculptures in this temple also deserve our attention. The *vimāna* has five well executed niches or *devakoṣṭhas* each containing exquisite sculptures in the typical middle Chola style—*Gaṇeśa* and *Dakṣiṇāmūrti* in south, *Viṣṇu* on the west and *Brahmā* and *Durgā* on the North. The sculpture of *Gaṇeśa* is very beautiful depicting him in the standing posture with his trunk turning to the left and taking the *modaka* from his left palm. His short *antarīya, kaṭi-bandha, udharabandha* and the *karaṇḍamakuṭa* have been done exiquisitely (Pl. LXXIII a).

The sculpture of *Dakṣiṇamūrti* shows him in the usual seated posture under the tree, one leg on the *apasmāra*, the right lower palm in *Vyākhyāna*, left lower palm holding the *pustaka* and the upper right hand holding *nāga* and the *akṣamālā* and left hand holding the fire (Pl. LXXIII b). Sculptures can stylistically be placed in the 11th-12th century A.D.

Apart from the sculptures mentioned above on the *Garbhagṛha* wall, we have many interesting sculptures of the Chola period in other shrines and other parts of the temple. Of these, the fire sculptures of Śaiva Nayanmars kept at the outer *pradakṣiṇapatha* of the *garbhagṛha* are rare. Appar, Granasambandhar, Sundarar and Manikkavasagar are all kept in a row (Pl. LXXIV a). While Appar and Sundarar are in *añjalī,* Manikkavasagar is in the *vyākhyāna* pose. They constitute a good collection Chola sculptural representations of the Tamil Śaiva saints who were honoured and worshipped in the *Śiva* temples in the medieval period all over the Tamil country.

The temple contains many other good sculptural pieces like those of *Vīrabhadra, Dwārapālakas* and *Bhairava.* The *Dvārapālikās* in front of the *Amman* shrine, are boldly carved with skill and care for showing the details (Pl. LXXIV b).

Thus the temple of Masilamaniswarar at Tirumullaivayal is of considerable value for all those interested in temple architecture, sculpture and history.

XXXII

Relevance of Tantrism to Erotic Temple Sculpture

DEVANGANA DESAI

As sexual rites and symbolism play a dominant role in Tāntric *sādhana* (spiritual discipline) and philosophy, one would like to know whether Tāntrism was responsible for sexual representations on medieval temples. But the exposition of Tāntric practices by Tāntrikas themselves involves an inner contradiction in as much as these practices were esoteric and Tāntrikas were expressly forbidden to impart doctrines to the lay public. So the question arises as to whether erotic sculptures on medieval temples could be the work by committed Tāntrikas. Moreover, the "depiction" of erotic scenes, as distinct from the "practice" of sexual rites, was not functionally related to or an integral part of Tāntrism. If this is the case, we would like to examine whether and, if so, how Tāntrism could be responsible for erotic display on temple walls.

Tāntrism, which considerably influenced the religious behaviour of medieval Indian society, emerged from the coalescence of primitive magic and highly evolved spiritual ideals. It organized practical methods for attaining the Highest Reality by incorporating primitive magico-religious rites. Practices adopted by Tāntrism are certainly older than the written texts on the subject which are dated from about the fourth-fifth century A.D.[1] Now, the depiction of *maithuna* (coital act) is seen in temple art from about the sixth-seventh century A.D. onwards.[2] Before this period we do not see *maithunas* but only *mithunas* or love-making couples in stone art of India. So the period when the Tāntras came to be accepted by the literate class coincides more or less with the period when the representation of *maithuna* appears on temples. This early representation of *maithuna* in temple art is quite restrained and recurs in sporadic examples in the period between A.D. 500 and 900. But after about A.D. 900 temples all over India display blatantly *maithuna* and orgiastic scenes.

DOES EROTIC SCULPTURE REPRESENT TĀNTRIC SPIRITUAL GOAL OF DIVINE BI-UNITY ?

Khajuraho, Konarak and Bhubaneswar are some of the important temple-sites having erotic sculptures, but it would be a mistake to confine our attention solely to these sites and to seek explanations for their erotic sculpture leaving out of consideration the host of other temples in Gujarat, Rajasthan, Maharashtra, Karnataka and Andhra Pradesh. Generalizing from some few instances of intimately love-making couples of Khajuraho, Konarak and Bhubaneswar, which form only a small fraction of the large number of erotic figures with varied thematic content seen on medieval temples all over India, including those on these three sites themselves, some writers have suggested that erotic figures exemplify the Tāntric spiritual goal of the Non-dual state of the Highest Reality or Divine Bi-Unity, or *Ānanda*, the Supreme Bliss. It has become common for writers on the subject to interpret erotic sculpture as microscopic representation of the cosmic sexuality, or the union of the Divine Male and Female principles, of *Śiva* and *Śakti*, *Puruṣa* and *Prakṛti*.

We will therefore examine briefly the Tāntric spiritual goal of Non-Duality (*Advaya*, *Sahaja*, *Yuganaddha*) and see whether it is relevant to the explaining of erotic sculptures on temples. The goal

of Tāntric *sādhana* consists in the realization of the identity of the worshipper with the worshipped, the individual soul with the Supreme Soul. The Ultimate Reality or noumenon is visualized as Supreme Non-Duality. In its phenomenalization, or in the process of its becoming, it manifests two aspects, conceived of as the negative and the positive, the static and the dynamic, rest and activity. The two polar aspects of reality are represented in Hindu Tantras as *Śiva* and *Śakti*, or any other pair according to the religious sect of the *sādhaka*, and in Buddhist Tantras as *Upāya* (Method) and *Prajñā* (Knowledge). All schools of Tāntrism hold that these two polar metaphysical principles are manifested in the material world in the form of the male and the female, and that the ultimate goal is to destroy the principles of dualism and to attain the state of Non-Duality[3]. In different esoteric systems, this state of Non-Duality is variously called the state of *advaya, maithuna, yuganaddha, kula, yamala, samarasa, yugala, sahajasamādhi* or simply the state of *samādhi*[4].

The *sādhana* for the attainment of the Ultimate Reality consists in bringing about the union of the male and female principles either stationed within the body as *Śiva* in the *Sahasrara* and *Śakti* in the *Muladhara Chakra* or in the external world as the man and the woman. The union of the opposites or the non-dual state is conceived of as *Ānanda* or Bliss.

In Tāntric *sādhana* the sexual union is not out of hedonistic motives or for worldly pleasures. The sexual practice is converted into a ritual carried out under controlled conditions and supervised by a *guru*. Man and woman copulate as god and goddess--*Śiva* and *Śakti* or *Upāya* and *Prajñā* or any other divine pair. The *Gandharva Tantra* says *devo bhutvā devaṁ yajet* (one should worship god after becoming god oneself). Thinking of himself as God and his *mudrā* (female partner) representing the Goddess, the *sādhaka* performs the sexual act. It is considered to be a sacred act. Often the act takes place in *maṇḍala* or mystic circle.

Yogic disciplines of *mudrā, āsana, bandha* and *prāṇāyama* are restored to in Tāntric sexual rites, specially of the Buddhist Tāntrikas and the Nātha sect, according to whom, the semen has not to be cast but to be taken upwards to the highest centre of the body, the *Uṣṇīṣa Kamala* or *Sahasrara* by the practice of *coitus reservatus*[5]. The sexo-yogic techniques require sound knowledge and practice of Haṭha Yoga, and of simultaneous respiratory and sexual acts. The aspirant is also required to have the mastery over the Saḍāṅga-Yoga or six limbs of Yoga.

It may be pointed out here that there is nothing unique about the Tāntric spiritual goal of Non-Duality as this concept of the Ultimate Reality was common to several non-Tāntric Hindu and Buddhist metaphysical systems[6]. But what distinguishes Tāntrism from non-Tāntric systems is its adoption of positive methods to attain the goal. What is speculatively conceived of in religious systems of the Vedānta is actually put into practice in Tāntric *sādhana*. Instead of the laborious path of asceticism and mortification, Tantras point to a short cut to *Mokṣa* (liberation). The union of the male and female principles within the body or actual copulation of man and woman is one of the means to reach the Ultimate Reality. The Tāntric aspirant makes use of magical and psychology aids such as *mantras* (incantations), *yantras* (mystic diagrams), *maṇḍalas* (mystic circles), *kavachas* (amulets) and *mudrās* (gestures).

What is called the art of Tantra consists generally of *yantras, maṇḍalas*, cosmograms, ritual objects, icons and graphic illustrations created for helping the Tāntric aspirant in his meditation and for the attainment of the spiritual goal of identification with the Divine Bi-Unity. The art of Tantra is religious in function and is not primarily meant to be for aesthetic appreciation or hedonistic purposes. This point should be borne in mind while examining the relationship between Tāntrism and erotic sculpture.

The question before us is whether the human erotic figures on medieval temples represent the spirutual concept of Non-Duality, of the union of *Ātman* and *Brahman, Puruṣa* and *Prakṛti*. Let us therefore examine the empirical evidence from erotic sculptures to find out whether they represent any spiritual ideal.

When we examine the early representations of *maithuna* as seen in temple art, it becomes obvious that they do not reflect any Tāntric philosophy of cosmic sexuality both in the placement of the scene in the sculptural scheme of the temple and in the thematic content of the motif. Among the early representations may be mentioned those on the 6th-7th century Paraśurāmeśvara and Śatrughneśvara temples of

Bhubaneswar. The *maithuna* scene of the Parasurāmeśvara temple is placed high on a recessed corner of the *śikhara* (*gaṇḍi*), well beyond the sight of the pilgrim or devotee. It is certainly not meant to be seen and could not have been for the enunciation of Tāntric metaphysical thought. Its theme is a man having relations from rear with a woman who is feeding her child[7]. It represents a non-Tāntric domestic scene. Next to this *maithuna* scene, in another compartment, there is a motif depicting a man exposing near a *śālabhañjikā*, female fertilizing a tree. Nudity exposure is one of the important items in the performance of fertility rites[8], and hence the scene represents a fertility motif. The *maithuna* scenes of the Satrughneśvara temple are in Kāmaśāstrīya sitting *bandhas* and do not reflct any spirituality or divine joy of lovers. Similarly, the *maithuna* is depicted at Aihole on the door of the Vaiṣṇava Kontgudi shrine where the carving is akin to primitive art. In one scene, the female partner sits in *uttānapāda* pose (legs raised and apart) reminding us of the Nude fertility goddess worshipped in this region[9]. Thus, the sculptural reliefs of the early medieval period do not reflect any spiritual aspect of the sexual union but represent possibly its magical aspect as associated with fertility cults. We will soon come to this point.

In the period A.D. 900-1300, most of the stone temples that have sculptural ornamentation show erotic figures to a greater or lesser extent in accordance with the conventions of the regional schools to which they belong. But *Ānanda* or Eternal Bliss of the Non-Dual state is rarely reflected in sculptural depictions. Hardly any sculpture of Gujarat, Rajasthan, Maharashtra, Karnataka and Tamil Nadu show the divine joy of two lovers. There are also sculptures showing forced sexual union. Only some sculptures of Orissa, Arang and Khajuraho present lovers in a state of bliss. But even the famous scene of Konarak showing an affectionate couple, the photographs of which are represented in art books and tourist publications, apparently suggesting the concept of *advaya*, turns out on visiting the site to be an erotic group having a third figure, a female attendant, who sits below to excite the male.

We rarely find sexo-yogic postures in sculptural depictions. It is in later day miniature paintings of Nepal, Rajasthan, Orissia, etc., that we find representation of what appears to be sexoyogic *āsanas*. The head-down postures seen on the Kāṇḍarīya and Viśvanātha temples of Khajuraho and on Padhavli (Morena district) and the *gopuram* of the Belur temple are but a small fraction of the vast variety of erotic figures seen on medieval temples. It is difficult to say whether these postures in the above-mentioned temple sculpture are Kāmaśāstriya, meant for play, novelty and for prolonging pleasure, or whether they are mystico-religious in inspiration. Medieval Kāmaśāstras, purely secular and non-religious works, had also included many intricate yogic postures to delay ejaculation[10]. The Tāntric *sādhana* aiming at the regression of the semen to the highest *chakra* involves stabilization or immobilization of semen, thought and breath[11]. For the successful practice of *coitus reservatus*, the male partner performed the yogic *āsana* and *prāṇāyama* (control of breath). But very few sculptures show males practising Yogic *āsana* and breath control. Male partners are shown generally in simple, non-yogic poses. The gymnastic postures representing mutual mouth-congress on the temples of Khajuraho (Duladeva), Galteśvara (Gujarat), Puri and Konarak involve women in athletic feats. Most of the postures in which coition is depicted on temples represent frontal standing poses, *vyanata-ratas* (copulation from rear) and varieties of oral-genital congress which do not involve yogic techniques and do not show any religious or spiritual aim. Moreover, male lovers often have Protruding stomach and disproportionate body which clearly indicates that they were not adepts in Haṭha yoga.

Even ascetics who are depicted in sexual scenes are not shown in yogic postures. Not only that but they are sometimes shown even with protruding stomach which cannot be associated with *yogīs*. Main poses in which they are portrayed on temples are : (*i*) *dhenuka* or *vyanata-rata* (congress from rear), seen at Khajuraho, Ambernath, Halebid, etc.; (*ii*) fellatio seen at Modhera, Gatleśvara, Roda, Ambernath, Halebid, etc.; (*iii*) *kakila* (mutual mouth-congress) seen at Khajuraho, Bagali, etc. Even auto-eroticism and exhibitionism are widely associated with the sculptural depiction of ascetics. At Bagali (Bellary district), a horse is shown having relations with an ascetic who is shown pitifully bent down.

Thus, on the basis of the observation of actual representation of erotic figures on temple walls we can say that there is no justification in considering these figures as symbolizing the Tāntric vision of

comic sexuality or Divine Bi-Unity or the Upaniṣadic imagery of the union of Ātman (soul) and Brahman (Supreme Soul).

ESOTERIC RITES OF PĀŚUPATAS

T.A. Gopinatha Rao[12], the well-known iconographist, suggested as early as 1916 that erotic sculpture represents some of the esoteric *vidhis* (rites) of Śaiva Pāśupata sect. Pāśupata Śaivism in its medieval development became an important Tāntric school and influenced sects like Kāpālikas and Kalamukhas. The objectionable *vidhis* were deliberately performed by members of the Lakulīśā-Pāśupata sect to bring ridicule and abuse upon themselves. These *vidhis* consist of *avitatkaraṇa* or acting absurdly without any sense of propriety, *avitatbhāṣaṇa* or talking nonsense, *sṛṅgāraṇa* or exhibiting signs of lust at the sight of youthful woman, and similar absurd and ludicrous practices.[13] Rao, while describing sculptures says, "in the majority of cases such sculptures consist of the figure of a stark naked male with his *membrum virile* erect, standing with his legs kept separated from each other and with his hands held in the *añjalī* pose over his head and his head always covered with long *jaṭās*, coming down on the side. In front of this figure is its counterpart, a female one, whose clothing is represented as slipping down the waist, thereby leaving the *pudendum* exposed". Similar sculptures have been seen by us at Bhubaneswar, Ambernath, Halebid, Belur, Bagali and Kanchipuram. But it should be noted that barring those at Ambernath and Kanchipuram, the male figures do not have *jaṭās*.

We must point out in this connection that such exhibitionist poses can also be explained under the general concept of "fertility". The exposing of generative organ is a device for magico-propitiatory and magico-defensive purposes.[14] Magico-religious significance has been attributed to generative organs all over the world since the early times. Nakedness was an important condition in magic rites of fertility. Genitalia have an apotropaic significance and are used actually or symbolically, in the form of amulet, for defensive purposes to turn aside evil. The motif of exposing ascetics is considered to be even of greater significance as ascetics in sexually excited poses symbolize the virile potency which they, more than anybody else, possess by virtue of their practice either of celibacy and thereby preserving *vīrya* (semen, potency) or of ritualistic sex which gives magic power.[15]

Moreover, Rao's hypothesis has limited application. The above-mentioned theme is only one of the numerous themes seen in erotic temple art. The Pāśupata rite of *sṛṅgāraṇa* can at best refer to exhibitionism near a lovely woman but not the actual sexual act. The *Pāśupata-Sūtra* commends strict celibacy for the initiate.[16]

MAITHUNA AS *MAKARA* AND THE BELIEF IN THE MAGICAL POWER OF SEX

It is important to remember that along with the facade of spiritual ideals, Tāntrism had its inner core of primitive magical techniques. It is the magical ritual aspect of *maithuna*, based on the belief in the magical power of sex, rather than its concept as spiritual symbolism, that can shed light on the problem of erotic sculpture in religious art of India. Sexual magic acquired great prominence under Tāntrism. Sex was practised ritually as a *makāra*. There are five *makāras* (*Pāñchamakāras*), all starting with the letter *m*, which have to be offered to the deity (and then partaken of by the devotee) in Tāntric *sādhana*. These *makāras* are *madya* (wine), *māṁsa* (flesh), *matsya* (fish), *mudrā* (rice or gestures) and *maithuna* (copulation). Worship with these five *makāras* or *pañchatattvas*, as they are called, forms such an important part of Tāntric *sādhana* that some Tantras specifically declare that there cannot be any worship without them. The *Kulārṇava Tantra* (Ch. V), one of the most important Tantras of the Kaula School, states that for the worship of *Śakti*, the five *tattvas* are absolutely necessary. The *Kaulavalinirṇaya* (Ch. IV) says that *panchamakaras* please deities (*makarapanchakam devi devatapritidayakam*).

Of the five *makāras*, *maithuna* is considered to be very important. No *sādhana* is complete without the fifth *makāra* or *maithuna*. The *Kaulavalinirṇaya* emphasizes the value of the fifth *tattva* and says that by this fifth *tattva* alone the *sādhaka* acquires all *siddhis* (powers). The *Kulārṇava Tantra* (VIII.107) specifically states that the deity is not pleased without *bhagaliṅgāmṛtaṁ*. Even a late work like the *Mahānirvāṇa Tantra* (V, 22-24; VII, 37, 96ff) which presents a very modified version of Tāntric practices,

says that *mantras* do not confer *siddhi* or power unless the Kulāchāra way is followed, *i.e.*, the five *tattvas* are offered. Worship of Kālī with *pañchamakāras* on the dark night of Tuesday brings many *Siddhis*, including *animan* and others. The *Karpūrādistotraṁ*, a Medieval Tāntric work, mentions : "If by night, Thy (Devi's) devotee, unclothed, with dishevelled hair, recites while meditating on Thee, Thy *mantra*, when united with his *Śakti*, youthful, full-breasted and heavy hipped, such a one makes all powers subject to him, and dwells on the earth ever a seer". The *Tārā-Bhakti-Sudhārṇava Tantra* says that the fifth *tattva* or *maithuna* is not the ordinarily performed sexual act but the ritual process, involving *nyāsa*, *mantras*, etc.; the entire operation is to be carried out as an offering to the goddess or *Brahman* in its collective female aspect[17]. The Tāntric *sādhaka* emits semen with the following formula : "Om with light and other as my two hands, I the exulting one, relying on the ladle, I who take *dharma* and non-*dharma* as his sacrificial ingredients, offer (this oblation) lovingly into the fire, *svāhā*' '.[18]

The act of *maithuna* or its substitutes are believed to please or propitiate the deity. This is clearly seen in the rituals of *Sabarotsava* on the tenth day of the *Durgā Pūjā*. The *Devī Purāṇa*, as quoted by a fourteenth century writer, emphasizes the performance of these practices to avoid the displeasures of the goddess.[19] The *Nandīkeśvara Purāṇa*, which is dated not later than A.D. 1100 and was probably composed between A.D. 850-950, mentions the use of abusive words on the tenth day of the *Durgā* festival. *Jimūtavāhana* in the twelfth century states in his *Kālaviveka*[20] that the goddess gets angry with the person who does not participate in actions, words and songs about the female and male genital organs (*bhaga-liṅga*). The *Bṛhaddharma Purāṇa* (III, 6, 81-83), a late medieval work of Bengal, says that a person worthy of worshipping the Mother Goddess should utter indecent words with a view to pleasing her.[21]

There is also a belief that the performance of the *pañcha-makāras* acts as a safeguard against evils as seen in the *Prajñopāyaviniśchayasiddhi* (5, 18), a Buddhist Tāntric work of about the eighth century A.D. (*Vighnāmaradiśāntarthaṁ pañchāmṛtaṁ adhisrayet*).

Both these functions associated with *pañchamakāras*, particularly the fifth *mākāra*, *maithuna*, recall to mind the practices of fertility cults in which ritual copulation is performed for the attainment of general welfare and riddance of all evils. I have shown elsewhere[22] that sex has been attributed with magical power and is one of the principal components of magico-religious rites. The idea behind it is that sex, which generates life, can, on the principle of imitative magic, rejuvenate natural forces. It is conceived of as a creative force and is used for "fertility". The word "fertility", here, has been used in a broad sense to include both its primary purposes of multiplication and revitalization of animals, vegetation, earth and human beings, and also its wider connotations, viz., the aversion of evil, death, misfortune and promotion of life, happiness, prosperity, well-being, abundance and auspiciousness. For instance, fertility charms and amulets ward off the evil eye and facilitate safe delivery, promote fertility of the wearer, etc. As Robert Briffault says, "The utilitarian effects of sexual activity extend, in early ritual, to practices intended to promote the general welfare of the community and to avert danger and misfortune.[23] J. Gonda[24] has also used the word "fertility" in its wider application.

The point which we would like to draw attention to is that the magical aspect of sex which is recognized in fertility cults is the central core of Tāntric rites. The belief in the magical property of sex comes to the force under Tāntrism. It is this belief that lies behind the "depiction" of sex in religious art.

Like the actual practice of sexual intercourse, or the use of lascivious words and the imitation of sexual act in rituals and seasonal festivals, the "depiction" of sex is also considered to be a powerful magic charm. The "depiction" of sex could, probably, be used as a substitute or surrogate for the actual performance of the rite. It, probably, represented the transmutation of the actual sexual act to the symbolic depiction of it. Gradually by usage, the depiction of sex acquires the character of the motif and is considered in itself to be a centre of magical power bringing auspiciousness and averting evil.

Now, in Tāntrism the concept of *makāras* is so important that even *Dakṣiṇāchāris* or right-handed Tāntrikas retained the formal aspect of it, but substituted the "objectionable" things by milk, cocoanut

water, fruit, honey, etc. *Pañchatattvas* are substituted by *anukalpatattvas*. Instead of the semen, they substituted cheese or similar object, and for the particular posture of the sexual intercourse, the offering of particular flowers was made.[25] By putting a *Karavira* flower, which represents the *liṅga*, into the *Aparājitā* flower, which is shaped like the female organ, *maithuna-tattva* is performed. The two are offered as *arghya* (offering)[26]. In the present day rituals of the Jagannātha temple at Puri, for instance, the concept of Tāntric *pañchamakāras* is retained, but the original *makāras* are replaced. Fish is substituted by green vegetables mixed with Hiṅgu, meat by ginger, wine by green cocoanut water, *mudrā* by *kānti*, a preparation of flour and sugar, and *maithuna* by dance of *devadāsīs* and the offering of the *Aparājitā* flower[27].

Can the depiction of *maithuna* on the temple walls be taken as a substitute for the actual practice of *maithuna* near the deity? Plausible support to this hypothesis is seen in medieval sculptures of Maharashtra, Gujarat, Rajasthan, and some of the central Indian shrines. Depiction of *maithuna* scenes at Padhavli in central India is shown near deities. Temples of Gujarat, Rajasthan and Maharashtra have representations of sexual couples, flanking the deities on the *kuṁbha*. These scenes can be seen on temples at Bavka in Panchamahal district, Motap and Sunak in Mehsana district, Galtesvara near Anand, Dabhoi near Baroda, Dwarka in Saurashtra, Eklingji and Nagda in Rajasthan, Ambernath, Balsane, Devlana, etc., in Maharashtra. The temple at Motap has a significant scene where the goddess *Chāmuṇḍā* in her aspect of *Dantura* sits with legs wide apart (*uttānapāda*) as the Nude goddess and is flanked on one side by an orgiastic group and on the other by musicians and dancers. Another noteworthy depiction can be seen on several pillars of the Śaiva temple at Ambernath. It represents two men holding their own phalli on either side of the goddess. This theme reminds us of the practice of pleasing the goddess on her festival by the *bhaga-liṅga-kriyā* or actions involving sexual organs mentioned in several Tāntric and Paurāṇic works and the *Kālaviveka* of *Jimūtavāhana*. The prototype of erotic depiction near deities is seen in a plaque from Awra in Mandasaur district of Madhya Pradesh belonging to *c*. 100 B.C.-A.D. 300[28]. It portrays two *maithuna* couples on either side of *Śrī*, the goddess of fruitfulness and abundance.

The sculptural depictions of couples near deities may represent the offering of *maithuna* for the propitiation of deities and for fertility purposes. As already mentioned, this conception of the offering of *maithuna* to the deity is connected with the cults of fertility. As James Frazer says, the great Mother goddess, the personification of all the reproductive energies of nature needs to enhance her fertility by union with a divine, yet mortal lover. This "fabulous union" of the divine pair is simulated and multiplied on earth by the real, though temporary, union of the human sexes at the sanctuary of the goddess for the sake of, thereby ensuring the fruitfulness of the ground and the increase of man and beast[29]. This conception is also seen in the origin of the sacred prostitution or the *devadāsī* institution, which is "a specialized and ritualized development of the primitive cult of the generative forces of Nature which involves the belief that all natural fruitfulness is associated with, and promoted by acts of human sexual intercourse which thus acquire a religious significance."[30] The ritual sexual act in the sanctuary is believed to magically create power for auspicious and defensive purposes.

EROTIC SCENES WITH TĀNTRIC CONTENT

We will now examine certain erotic scenes which have Tāntric content.

One such theme is hair-cutting along with the sexual act or love-making. The sculptural representation of this theme is met with at Bhubaneswar, Konark and Ratnagiri in Orissa and Bagali in Karnataka. These scenes remind us of hair offering which takes place during the initiation and propitiation rites of fertility cults in general and Tāntric cults in particular.[31] The theme offers an interesting clue to the coalescence between Tāntrism and fertility cults. From the study of comparative religion it can be seen that in early civilizations and primitive cultures hair is considered to be representative of the person's potency[32]. Offering of hair, like offering of blood, implies establishing bonds with and giving one's own self to the deity.

Hair-offering has an important place in the worship of the Mother goddess. The seventh century reliefs of Mahabalipuram seem to depict hair offering to *Devī* by a male devotee[33]. Vākpati, the eighth

century poet of Kanauj, refers in his *Gauḍavāho* (317) to the hair offered in the shrine of goddess *Vindhyavāsinī.* Offering of the *śikha* (tuft of hair) in the fire by the Tāntric aspirant is mentioned in the *Mahānirvāṇa Tantra* (VIII, 257ff). G.W. Briggs noted that the Nāthapanthī initiate, after his tonsure, allowed his hair or *śikha* to grow until he paid a visit to some shrine. Here he got it cut and offered it to the deity along with food.

An important evidence of hair-offering and *maithuna* is obtained in the Tāntric work *Karpūrādistotram* (Verse 16 and commentary) addressed to *Kālī.* Here in the description of the *Vīrasādhana* rites, it is mentioned that the *sādhaka* who offers his hair with roots (*samūlam chikuram*) and semen (*vīryaṁ*) to the goddess on Tuesday night in the cremation ground, achieves worldly happiness. A similar reference is seen in another Tāntric work *Kakarakūṭarahasyaṁ*[34] where the offering of hair, semen and nail is mentioned. The sculptural scenes seem to represent a Tāntric rite in which the *sādhaka* offers both hair and *maithuna*, the fifth *makāra*, to the deity.

The Tāntric content is present in the scene depicting a woman with her right hand in *abhayamudrā* (gesture of fearlessness) while a man has sexual relations with her. It is seen at Bhubaneswar in the eleventh century Rājārāni temple and also, probably, on a seventh century sculpture from the same site. The scenes seem to represent the female partner as *Śākti* or goddess. Similarly, a couple carved in the later additions of the Liṅgarāja temple, which represents the woman partner sitting on the left side of the man's lap, reminds us of the *Kaula* rites described in the *Yaśastilaka* and the *Sahajiyā* practices mentioned in the *Nāyikā-Sādhanā-ṭīkā.*

The presence of male attendants in the erotic groups suggests that these scenes were not representative of the secular sex of the *antaḥpura* (harem). Male attendants were never seen in the Indian harem, which according to the seventh century writer Bāṇa, had only dwarfs, female servants, etc. Although Vātsyāyana, Kalhana and others mention extramarital relations of women of the harem, it can be said that the lovers were not a regular feature of the harem. They were surreptitiously brought into the women's quarters during the absence of the king. The sculptural panels of Kāṇḍarīya and Viśvanātha temples of Khajuraho which depict males attending on the persons with royal insignia represent not simple harem scenes but religious, or to be more specific, Tāntric rituals in which the royal families participated.

A considerable number of erotic scenes on temples represent oral-genital congress known in the *Kāmasūtra* as *auparistaka.* This mode of congress is condemned by the *Śāstras.* The *Mahābhārata* declares that sex act in the mouth is a crime. Vātsyāyana (*Kāmasūtra*, II, ix, 22) was aware of this disapproval by the holy texts. He is reserved in his comments on oral congress. According to him, eunuchs and low class people practise this act. Wise men, learned Brāhmaṇas and government officials should not indulge in it. Kokkoka, writer of the *Ratirahasya*, who lived in about the twelfth century A.D., has totally avoided the description of oral congress.

The representation of this much-criticized practice on the temples of the period is an indication that it was depicted for a different public. A significant clue to the understanding of the depiction of oral congress has come from a Tāntric text *Kaulachūḍāmaṇi*[35] which mentions the *rājāhpāna* or drinking of *rājās*, the female discharge, as one of the *aṣṭakāmakalāprayoga* or the eight modes of love practised by Tāntrikas. This, however, would be helpful in explaining the depiction of cunnilingus where the oral act is performed by the male. For the explanation of fellatio which is performed by the female partner, it can be said that, as Tāntrikas admitted in their rituals, low-class women who were not debarred by the *Śāstras* from performing this act, these scenes could represent Tāntric sexual practices involving women of lower class.

Most important are the scenes showing ascetics, either with long hair and beard or cleanly shaven, in sexual practices, sometimes making peculiar gestures as if uttering *mantras.* These are, no doubt, Tāntrika practitioners.

WHO COULD HAVE PORTRAYED TĀNTRIC EROTIC SCENES WHEN TĀNTRIKAS WERE ESOTERIC ?

But there is an inner contradiction in exposing Tāntric esoteric doctrines to the general public. One may ask whether genuine Tāntrikas could ever expose their practices to the ignorant eyes of the uninitiated. Only the Tāntrikas and that too of the *Vīra* type (among the three categories of Tāntrikas : *Ḍivya*, *Vīra* and *Paśu*), had *adhikāra* or privilege of practising the ritual of sex. Indrabhuti, in his *Jñānasiddhi* assignable to the eighth century, commends complete secrecy of the practices. The *Kulārṇava Tantra* (III, 4-6) declares that absolute secrecy should be maintained in these matters. The *Kulachūḍāmaṇi Tantra* (Ch. I) says that the doctrine is not to be communicated to any uninitiated person, not even to *Viṣṇu* or *Brahmā*. The *Gandharva Tantra* (XXXVII, 14-15) maintains that persons using these things for secular purposes were doomed to eternal damnation. Moreover, to ensure the esoteric nature of Tāntrism, their texts were also written in what is called *sandhyābhāṣa*—intentional or secret language—which could only be understood on interpretation by a *guru*. Even today, as G.M. Carstairs[36] reports, Tāntric rituals are carried out secretly in the villages of Rajasthan, where outsiders are strictly prohibited and only the initiated are permitted to participate. Thus, it is difficult to reconcile the Tāntric theory of secrecy with the bold exposition of *maithuna* ritual, where ascetics themselves are shown in the sexual act.

In this context, it is interesting to note the two Medieval works dealing with cannons of *śilpa* (art), viz., *Śilparatnaṁ* (46, 9-10) and *Mayamatam* (18, 3) which enjoin: "On the habitations of human beings should not be figured the scenes of war, death or sorrow or legends about Gods and *Asuras* or nude figures and the *līlā* or amorous sports of the ascetics. On other buildings, made for other purposes, whatever is desired may be done". A similar passage from the *Suprabhedāgama* (30th *paṭala*) says, "Particularly (one should make) the figures of *Śiva's* sport (*Śivakrīḍā*), of *Hari's* sport (*Harikrīḍa*) and sport of the ascetics (*Tapakrīḍa*)". Tarapada Bhattacharya[37] suggests from these *śilpa* conventions that on temples the above subjects could be depicted.

We have here a complicated situation. The Tāntric texts emphatically declare that their doctrines and practices should be kept absolutely secret, while texts from South India dealing with *śilpa*, one of which is definitely Tāntric, mention that ascetics should be shown in amorous play on temples. How can we resolve this contradiction ?

Let us try to understand the situation. We have seen that sex was attributed with magical power in fertility rites. Under Tāntrism, the belief in the magical efficacy of sex was revived along with other magical devices. The practice of *maithuna* and other *makāras* was believed to give *siddhis*, Now, the magical power of the motif of "ascetic and woman" was considered important for "fertility" purposes in ancient thought and rites. It was recognized, for instance, in the Vedic rite of *Mahāvrata* where a *brahmachārin* who was "powerful" on account of his preservation of the semen copulated with a prostitute. Their relationship was believed to promote fertility and was magico-defensive. The same belief underlies the story of *Ṛṣi Sṛṅgī* in the *Mahābhārata*. It is likely that when magico-sexual depictions were accepted in temple art, one of the themes was the motif of "aesetic and woman" which was considered to be auspicious. The *śilpa* texts with Tāntric leanings seem to commend the motif not with the intention of exposing Tāntric doctrines and practices but because of their acceptance of the motif as a powerful charm. The *Sṛṅgāraṇa* rite of the Pāśupatas, mentioned earlier, is perhaps one of the themes used in representing the "ascetic and woman" motif.

The next possible development seems to be that the artists, after the recognition in *śilpa*-canons of the "ascetic and woman" motif tried to caricature or depict the sexual life of Tāntric *gurus* as was done by their contemporaries in literary arts, viz., Kṣemendra, Somadeva, Kṛṣṇa Miśra, Kalhana, etc. It is possibly for this reason that ascetics of rival sects are caricatured or shown in ludicrous positions on temple walls.[38] Thus, for instance, Vaiṣṇava temples of Khajuraho, viz., the Lakṣmaṇa and *Devī Jāgdambā*, portray Buddhist or Jaina monks and Śaiva ascetics. Śiva temples depict Buddhist and Jaina monks, *e.g.*, the Brahmeśvara temple at Bhubaneswar and the temple near that of the Raṅganātha at Halebid, etc. Does not this suggest that after the acceptance of the sexual theme in about A.D. 900

the artists made use of the *maithuna* motif to express their sense of humour ? This would probably explain why the ascetics, instead of being shown in Haṭhayogic postures, are shown in *Kāmaśāstrīya* or simple in standing postures. The penchant for ridiculing them is carried to the absurd limits by the artists of Bagali in Karnataka where even a horse is shown mating with the bent-down ascetic.

Recognition of the magical power of sex was expressly given by the *Śilpa Prakāśa,* the Orissan Śilpaśāstra of Kaulāchāras, written between the 9th and 12th centuries A.D. As one would expect, it too mentions the symbolic representation of sex in the form of the Kāmakāleśvara Yantra for magico-propitiatory and magico-defensive purposses. The text declares : "This *yantra* should never be given to anyone who is not a Kaulāchāra." "This most secret *yantra* is best for giving protection to all. It is an evident giver of power and the manifest bestower of all perfections (*siddhis*)". "In the best temples dedicated to *Śakti* and to *Rudra,* this *yantra* must certainly be placed. Then the monument will stand unmoved forever". "This *yantra* is utterly secret, it should not be shown to everyone. For this reason a love-scene (*Mithunamūrti*) has to be carved on the lines of the *yantra.* In the opinion of the Kaulāchāras it should be made on the lovely *jaṅghā* in the upper part of the wall. The *Kāmabandha* is placed there to give delight to people".[39]

Thus, the portrayal of human sexual poses, *Kāmabandhas* according to this Tāntric Śilpaśāstra is for the "delight of people", from whom the actual Tāntric *yantra* symbolizing the sexual act has to be hidden.

The depiction of scenes representing Tāntric rituals involving ascetics could not, theoretically, have been the work of "genuine" Tāntrikas. More likely would be that the Tāntrikas expressed the union of the female and male principles through symbolic form of *yantras* or iconic form of divine couples, *Umā-Maheśvara, Lakṣmī-Viṣṇu, Yab-Yum,* etc. There was no functional need for them to expose their own esoteric practices to the uninitiated who visited the temple. It is significant that in the Chausaṭha Yoginī temple of Bheraghat near Jabalpur, there are representations on the pedestals, on which the images of goddesses are carved, of a *yantra* of double triangles and of a triangle, shaped in the form of the *yoni,* which is being worshipped by ascetics. Also equally significant is the fact that this was a truly Tāntric shrine and that it represents not erotic couples but Tāntric symbols. Again, it is interesting to note that orgiastic depiction appears quite late in Orissa (which was a Tāntric centre) compared to central India, Rajasthan, Gujarat and the Deccan. Bhubaneswar, which was listed as a *pīṭha* in Tāntric texts, has very few orgiastic scenes whereas Khajuraho (*Kharjuravāhaka*), which does not feature in any of the Tāntric texts, has blatant display of sexual orgy.

The original Tāntric *pīṭhas* in the borderland of India, Assam, Bengal and the North West of India (Swat valley), did not display erotic motifs. The erotic sculpture of Kāmākhyā in Assam belongs to later period. Śrīparvata in the Kurnool district, which was a well-known Tāntric centre at least from the seventh century onwards, is not known to have prominent figures in its temple art. The Chausaṭha Yoginī temples in central India and Orissa do not have any erotic figures. All this indicates that the Tāntric shrine need not necessarily have erotic depictions.

Of the numerous places mentioned as Tāntric *pīṭhas* (centres), the following are known to have erotic figures in the decoration of their temples :

Ekamra (Bhubaneswar) and Puruṣottama (Puri) in Orissa,
Ellapura (Ellora) in the Deccan,
Prabhāsa, Dvāravatī (Dwarka) and Siddhapura in Gujarat,
Omkareśvara on the Narmada,
Mathura and Vārānasī in Uttar Pradesh,
Kāñchi in Tamil Nadu,
Naipāla (Nepala)[40].

But it is important to note that the erotic sculpture of these places is in the accordance with the canons of art style of the region where they are situated. Art of the period from about A.D. 900 onwards reflects the cultural impact of feudalism.[41] It was considerably influenced by regional tendencies and conventionalism. The study of erotic sculpture of several regions shows that the size, placement in the sculptural scheme of the temple and theme of the erotic motif were more or less conditioned by the

canons of regional art style to which the temple belonged. In Gujarat, for instance, the erotic motif is placed on *kakṣāsana* of the balcony, *narathara* on the plinth, *kuṁbha* row above the plinth, and on pillars and lintels of the temple. It is never placed on the *jaṅghā*, the main wall of the temple. The temples of Gujarat, those at sites noted as *pīṭhas* as well as those at sites which are not listed in Tāntric texts such as Modhera, Motap, Sunak, Bavka, etc., have the same type of erotic depiction as permitted by the art school prevalent in Gujarat. Similarly, the erotic depiction of the temples at Bhubaneswar and Puri (Tāntric *pīṭhas*) bears similarity with that of the temple at Konarak situated in the same region, and is different from that of temples of Tāntric *pīṭhas* in other regions.

Moreover, many of the temple-sites having erotic display are not listed as *pīṭhas*. Khajuraho, Arang, Padhavli, Modhera, Motap, Sunak, Vavka, Galtesvara, Debhoi (Darbhavati), Ambernath, Balsane, Belur, Halebid, Somanatapur, Bagali or their ancient names are not mentioned in Tantric texts.

DEGENERATION OF TĀNTRIC PRACTICES

Among the factors which could have led to erotic display on temples, we may mention the degeneration of Tāntric practices. From the literature of the period, it seems that many hedonistic aspects had crept into Tāntric sexual rites and practices. In its very essentials, Tāntrism is an esoteric religion involving ritualistic sexual practices, not for pleasure, but for the spiritual attainment of the non-dual *sahaja*. But there was a possibility of distortion of the central purpose and principle of Tāntrism. Sex could become a mere end in itself. The sensitive writers of the period like Kṣemendra, Kṛṣṇa Miśra, Somadeva, Kalhana, etc., had ventilated their grievances against Tāntric *gurus*. In the Karpūramañjarī (I, 24) of the tenth century, the Kāpālika Bhairavāchārya has the audacity to declare his ignorance of *mantras*, *tantras* and meditation. He asserts that the *kula* is attained only through wine and women. In the *Prabodhachandrodaya*, the Soma Siddhāntin Kāpālika allures the Digaṁbara Jaina ascetic and Buddhist monk by offering wine and women. In the *Daśāvatāracharita* of Kṣemendra, Tāntric gurus declare that liberation follows from the drinking of wine from the same goblet by washermen, weavers, Kāpālikas, etc., during Chakrapūjā, from free dalliance with women and from a life of festivity.

The Vajrayāna Buddhists, who emphasized Tāntric-yogic practices and discipline, also declared, that there cannot be any evil for the Vajrayānists, "no act not to be done, no food not to be taken, no woman not to be enjoyed", etc. It was also mentioned that a Vajrayānist should steal the property of others, always tell lies, kill all beings, etc.[42] Such practices were likely to degenerate into licentiousness. The Buddhist ascetic of the *Prabodhachandrodaya* (III, 9, pp. 43-44) says, "Existence is transitory, the soul is not permanent, and so do not be jealous when mendicants desire to have your wives". He praises Budhdist religion and says, "It permits us to inhabit elegant houses and to enjoy wives of merchants (*vaṇikāryā*) obedient to our will; it removes the restrictions as to time of eating; it allows us to recline on soft beds, and to pass the shining moonlit nights in amorous play with young girls who have sprinkled themselves with powders and who serve us with faith (in Buddhism)". This statement, though put in the mouth of a Buddhist monk by the poet of an opponent group, seems to reflect hedonistic trends in the Buddhist religion of the period.

The association of Tāntrikas with royal harems and wives of the wealthy is portrayed in literature of the period. Rājaśekhara in his play *Karpūramañjarī* shows the Kāpālika-Kulāchārya being invited to perform acts of jugglery and magic in the royal court. This Tāntric practitioner was looked after by the chief queen and her attendants. He built a temple of Chāmuṇḍā in the compound of the queen's palace. This reference, though fictional in character, points to the possibility of Tāntrikas' close association with the royal court and the ladies of the harem. The *Kathāsaritsāgara* (Ch. 20), relates a story of a queen who participated in nudity rites conducted by Kālarātrī, described as a Dākinī (witch), who was probably a woman Tāntric leader. Kṣemendra's descriptions of orgiastic ceremonies conducted by a Kaula *guru* to exercise a neo-rich Kāyastha's wife indicates the close association of the Tāntric practitioners with the officer class. House-wives seem to have participated in the Tāntric rites of *gurudīkṣā* (initiation) as can be inferred from Kalhana's *Rājataraṅginī* (VI, 12; VII, 278).

It is likely that the royal and aristocratic families were influenced by decadent Tāntric practices prevalent in the royal circles of Kashmir have been vividly described by Kalhana. King Kalaśa of the eleventh century became a pupil of Pramādakanṭha under whose instructions he practised even incest with his own daughter. His son, Harṣa, in his later life seems to have been fascinated by the practice of *kāyāsādhana* (physical culture). He was given slave-girls as presents. He considered them *devīs* and believed that they granted him longevity. He kept the company of a Domba (a low-caste associated with Tāntrikas), who gave him an elixir preparation for *piṇḍasiddhi* (VII, 1129-35). Another king of Kashmir married a Dombi and made her the chief queen. The ministers of the court even went so far as to wear her menstruation clothes (V, 392).

Tāntrikas were interested in longevity, *kāyāsādhana* and *Rasāyana* (alchemy). *Rasāyana* is known to have existed in Patañjali's time in the second century B.C., but further researches were made by Tāntrikas in the physico-chemical processes for transmutting and "immortalizing" the body[43]. Tāntrikas also influenced Kāmaśāstras. Medieval erotica show the influence of Tāntric magic.[44] Their "researches" and interest combined with knowledge of *vajikaraṇa* (aphrodisiacs) and *Vaśīkaraṇa* (magic to win over a person) placed Tāntrikas in favourable light among the feudal aristocracy and royal society. Kalhana's comment on king Harṣa's attitude to *piṇḍasiddhi* is one of the examples. In Kṣemendra's *Samayamātrika* (II, 103), we read that *ṭhakkuras* (feudal princelings) worshipped a fake woman religious teacher who claimed knowledge of *dhātuvāda* (science of metals) and *kāmatattva* (sex) and who said she had lived a long life, thereby indicating her knowledge about the process of longevity. It is significant that in the fourteenth century when Arab traveller Ibn Battuta visited Khajuraho, he saw yellow-skinned ascetics, "who made pills for increasing sexual desire"[45]. In this context we may refer to Hermann Goetz's identification of an elizir preparation scene amidst the orgiastic panel on the Lakṣmaṇa temple at Khajuraho[46].

The sculptured reliefs of Khajuraho, Halebid, Modhera, etc. show ascetics participating in sexual orgies in which royal persons are also shown. They may indicate possible situations known or imagined by the artists. Kṣemendra's description of the *ratichakramahotsava* (or midnight orgy around Chakra), participated by all sorts of off-beat characters and the Kāyastha officer and his wife, points to the possibility of participation by the official class in Tāntric sexual practices.

It is possible that Tāntrikas in the decadent stage and their royal patrons, who built the monumental temples for fame and glory, indulged in display of sexual motifs on temples. The magical property associated with sexual depiction could establish it as a motif in temple art. But its large-scale and loud display could be due to the encouragement received from the class associated with temple-building.

TĀNTRIC ELEMENTS IN PAURĀṆIC RELIGION

The study of the religious background of the temples of Konarak, Puri, Bhubaneswar and Khajuraho —some of the important sites having erotic sculpture—reveals the influence of what is called the Miśra religion of Smārta-Paurāṇic Tāntrism[47], and not of extreme Tāntric sects with esoteric practices. Hence, in these temples there need not be particular injunction for not revealing secretive Tāntric practices.

The Purāṇas and Smṛtis, which were the dominant religious texts from A.D. 300 onwards, guiding the *pūjā*, *vidhis*, ceremonies and festivals of the Hindu temple, gradually assimilated Tāntric magic elements in their religious system. As R.C. Hazra has shown, before A.D. 800 the Purāṇas showed an antagonistic attitude towards Tantras. But from the end of the eighth and the beginning of the ninth century A.D., some of the Purāṇas began to recognize Tantras as one of the religious authorities.[48] P.V. Kane[49] has also noted the influence of Tāntrism on the Purāṇas and its penetration through Purāṇas into religious ritual and practices of the Hindu temple.

Now the Purāṇas such as the *Padma*, *Bhāgavata* and *Kūrma* recognize the three modes of *dharma* (religion), viz., Vaidika, Tāntrika and Miśra[50]. The Miśra school of Smārta-Paurāṇic religion of the Medieval period accepted Tāntric elements and retained at the same time their veneration for the Vedas and the *varṇāśramadharma* and was within the Brāhmanic fold. The Smārtas were also influenced by

syncretistic tendencies and recognized *pañchāyatana pūjā* which involved the worship of five deities, generally *Viṣṇu, Śiva, Devī, Sūrya* and *Gaṇeśa*. One of the deities is considered to be the main divinity for worship and the rest are enshrined in minor shrines at the four corners or in the niches of the temple. The Smārta worship which is mentioned in the Purāṇas is influenced by Tāntrism[51]. The *Kūrma Purāṇa* gives the name Miśra Pāśupata to the worship of five deities. (*Ravim Śambhum tathā Śaktim Vighneśam cha Janārdanām yajanti samabhavena Miśrapāśupatam hi tat.*)[52]

Pañchāyatana pūjā has been mentioned in several inscription of the eleventh-twelth century A.D.[53] Architectural evidence shows Smārta *pañchopāsana* worship at Khajuraho, Osia, Sinnar, Bhubaneswar, etc. Iconographical evidence from Khajuraho, Padhavli, Delmal, Pavagadh, Kiradu, Ambernath, Bhubaneswar, etc., shows Smārta *pañchopāsana* worship.[54]

The description of religious *vidhis* (rites) and *pūjā* (worship) at Konarak, Bhubaneswar and Puri in the *Brahma Purāṇa, Sāmba Purāṇa* and the *Tīrthachintāmaṇi* of Vāchaspati Miśra suggests infusion of Tāntric elements in Paurāṇic-Vedic material; for instance, the *vidhis* at Konarak included according to the *Brahma Purāṇa* (Ch. XXVIII) both Tāntric and Vedic *mantras, nyāsa* and *mudrās*. The *Tīrthachinta-maṇi*[55] states that at Konarak one could worship with Tāntric and Vedic *mantras* and *Bhakti* (*Tāntri-kairvaidikairmantrairbhaktya Konarkam archayet*). Both *Āgamic* and *Vedic mantras* were used in *vidhis* at Bhubaneswar as described by the same *Purāṇa* (lines 61-67). The Purāṇa while describing *vidhis* at Puri states that one should worship Janārdana in the *maṇḍala* by Tāntric *mantras* and by *Bhakti*.

The *Smārta* cult is evident in several panels of Konarak where the King (Narasiṁhadeva) is shown as worshipper of the three deities : *Jagannātha, Śiva-Liṅga* and *Devī Mahiṣāsuramardinī*. *Sūrya* was worshipped in the temple itself. In inscriptions also, the King Narasiṁhadeva is called *Parama-Maheśvara, Durgā-Putra* and *Puruṣottama-Putra*.[56]

At Khajuraho there is no evidence to show the prevalance of extreme Tāntric sects like Kaulas and Kāpālikas. The literary material in Pramod Chandra's article[57] applies rather to religious conditions prevailing all over India in general than to those of the temple-town of Khajuraho in particular. The completely shaven or bearded and long-haired ascetics portrayed in Khajuraho sculptures are without doubt Tāntrikas, but whether they are Tāntrikas of the Kaula-Kāpālika variety is difficult to say. Some of them seem to be Tāntric Buddhist and Jaina monks. The fact that the Tāntrikas are portrayed on the temples does not at all indicate that the religion of the temple-builders was Tāntric. On the contrary, as we have seen, Tāntrikas themselves are not likely to portray their own ritualistic practices. One could, however, associate the Chausaṭha Yoginī temple with Kaulas and Kāpālikas. But there is no ornamenta-tion on this *Śākta* shrine. The "depiction" of sex, as distinct from actual practices was probably not a functional necessity of the believers of the cult of the Chausaṭha Yoginīs.

Inscriptions of Khajuraho indicate Paurāṇic influence in religious practices.[58] Sacrifices, *dāna* (gift-making) and *purta-dharma*, which consisted in building of temples, tanks, etc., were given an important place in religious life. In the Khajuraho inscription of V.S. 1011, the king is said to protect the three Vedas. The prosperity of the Brāhmaṇas in particular is considered important.

Along with Paurāṇic-Vedic influence, there are also clues to suggest Tāntric influence at Khajuraho. The *Vaikuṇṭha* (*Viṣṇu*) image of the Lakṣmana temple was associated with Pañcharātric pantheon of the Tantrāntara or Kāśmīrāgama school.[59] Moreover, it was obtained through *Bhoṭas* or Tibetans as mentioned in the inscription of the temple.[60] The worship of the Pañcharātric image of *Viṣṇu* obtained from a Tāntric region possibly implies Tāntric rituals. Secondly, Gaṇḍa and Vidyādhara, the names of two Chandela rulers of Khajuraho seem to be Tāntric appelations.[61]

Thus, on the data available it can be said that the religion of Khajuraho was not of extreme Tāntric sects but seems to be a mixture of both Paurāṇic and Tāntric elements. Also the fact that the shrines were dedicated to *Śaiva, Vaiṣṇava, Saura* and *Śākta* deities, all erected close to one another, supports the *Smārta pañchopāsana* form of worship.

CONCLUSION

Sexual representation on Medieval temples was the result of the configuration of several in the course of history. Tāntrism was one of the major factors in bringing about its wild outburst. But it was not

the spiritual and metaphysical aspect of Tāntrism that was responsible for this wild display. Rather, the erotic profusion can be related to two consequences of Tāntrism : first, the popularity of magic, and second, social permissiveness towords sexual expression in arts. The latter was incidental to Tāntrism. Tāntric *gurus* spread their doctrines among the aristocracy. Ritualistic sex gradually acquired hedonistic elements. The already prevalent glorification of sensuousness and *śṛṅgāra* in Indian cultural tradition got a wider scope in its expression. Sexual display became a fashion. The degraded practices of the Kaulas, Kāpālikas, Pāśupatas, Buddhists and Jainas became the target of the writers of the period and captured the imagination of sculptors. The subject received a sophisticated and artistic treatment at the hands of sculptors, specially at Khajuraho, Konarak and Bhubaneswar.

The magical aspact was basic to Tāntrism. The Tāntric concept of *maithuna* as *makāra* rests on the belief in magical power of sex. *Maithuna* is believed to propitiate deities, appease evil spirits and grant *siddhis*. The magical techniques developed by Tāntrism were gradually accepted by all religious systems—Hinduism, Buddism and Jainism. Tāntric magical elements penetrated insidiously into Smārta-Paurāṇic religion more pronouncedly from the eighth-ninth century A.D. The widespread use of magic in the period reaffirmed the already established art tradition of decorating monuments with auspicious *mithuna* motifs and facilitated the development of Medieval sexual expression. Depiction of sex which was recognized as conducive to fertility purposes and was believed to be auspicious and luck-bringhing, was given a great impetus in the atmosphere in which Tāntric magic flourished. The rationale of sexual representation in religious art lies in the ancient idea, seen the world over in fertility rites and emphasized by Tāntrikas, that sex brings magical power. Sexual motifs were believed to be endowed with magical power for prosperity, well-being and auspiciousness and for appeasement of evil spirits and averting calamities.

Once the sexual motif was accepted in the sculptural scheme of the temple and had been established in *śilpa*-canons, it became a *motif-by-itself* exercising power. The factors which helped its acceptance as a motif in the canons of temple art need not be present after its recognition as an art motif. Temples built after about A.D. 900, whether they were directly influenced by Tāntrism or not, were bound to have depiction of sex in their art if the regional schools recognized the motif. Its mode of presentation was conditioned thereafter by the *śilpa*-canons of the regional school. But the extent of its depiction in the sculptural scheme depended upon socio-cultural factors, which among other things included the social consequences of Tāntrism, viz., the attitude of permissiveness towards sexual motifs as a result of the spread of Tāntrism among the pleasure-loving high society.

We can distinguish two categories of art in relation to Tāntrism : (*i*) "genuine" Tāntric art, consisting of *maṇḍalas*, *yantras* symbolic union of male and female principles, divine couples, etc., which is functionally related to Tāntric *sādhana*; (*ii*) art influenced by Tāntrism, without being functionally related to it. The depiction of human couples and orgies is not functionally related to Tāntric *sādhana*. But the belief in the magical efficacy of sex, which is emphasized in the Tāntric period, may lead to sexual depiction in art of both Tāntric nnd non-Tāntric temples. The genuine Tāntrikas would tend to restrain themselves in exhibiting their own esoteric practices, but may show erotic themes of non-Tāntric nature, depending upon the regional art style to which their temple belongs. The Tāntrikas in their decadent phase and the followers of the Miśra school of Paurāṇic-Tāntric religion could display ascetics and Tāntric practices.

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MAHAYANA BUDDHISM, AJANTA



a. Cave XV, entrance door.

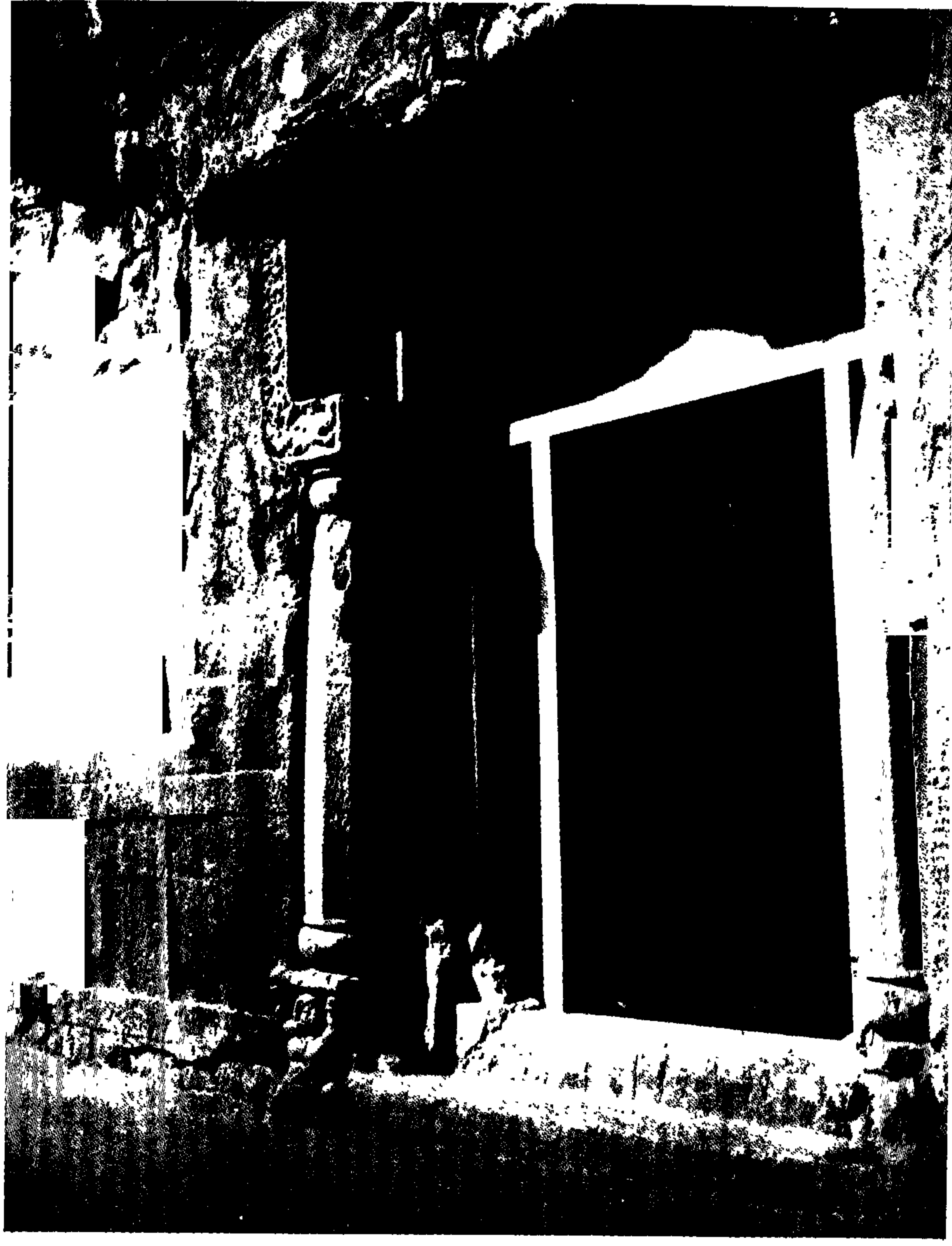
b. Cave XV, Buddha in shrine.

Plate XXXII

MAHAYANA BUDDHISM, AJANTA

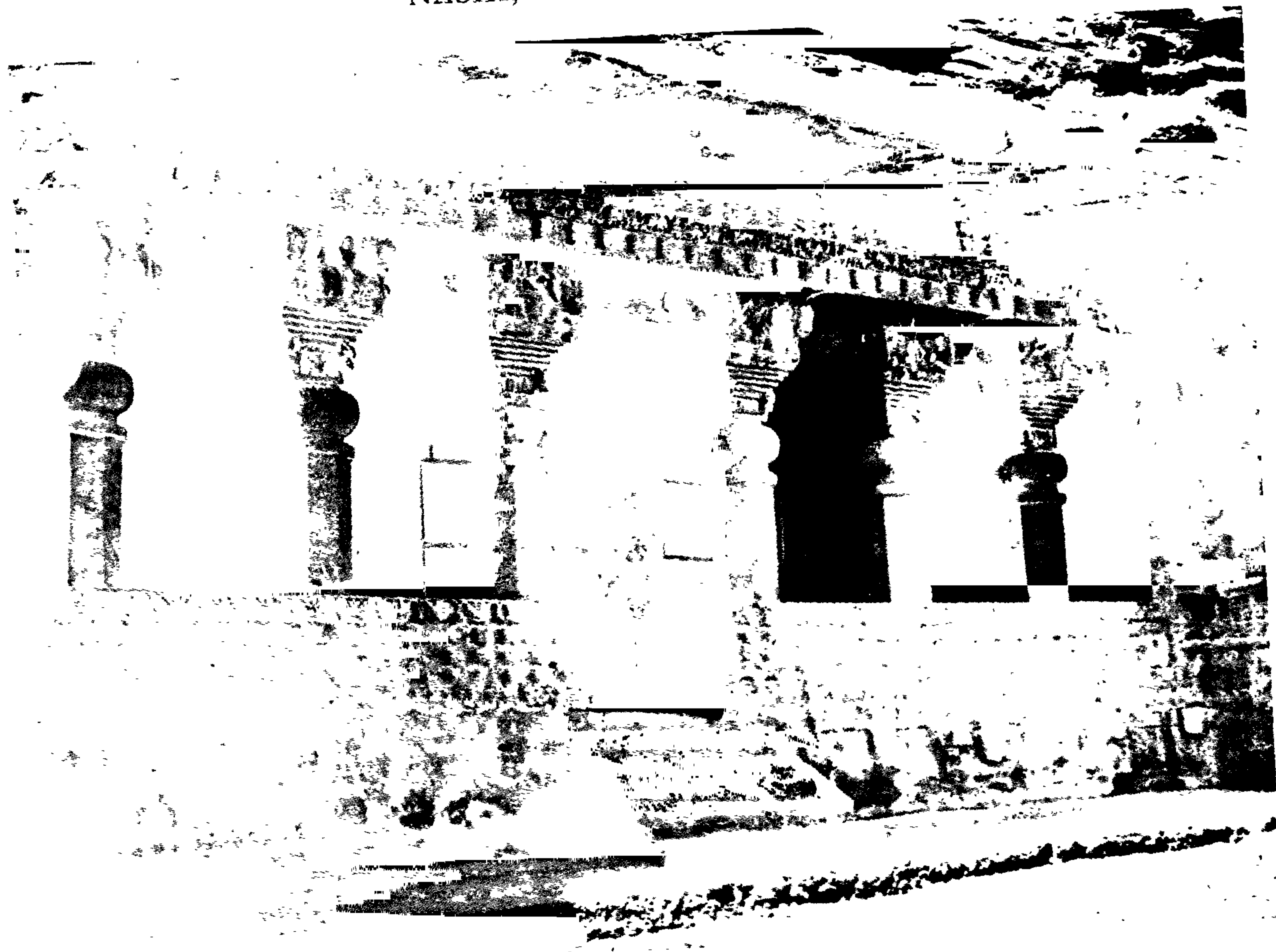


a. Cave VII, Verandah Pillars.



b. Cave VI, entrance door.

NASIK, CAVE 3



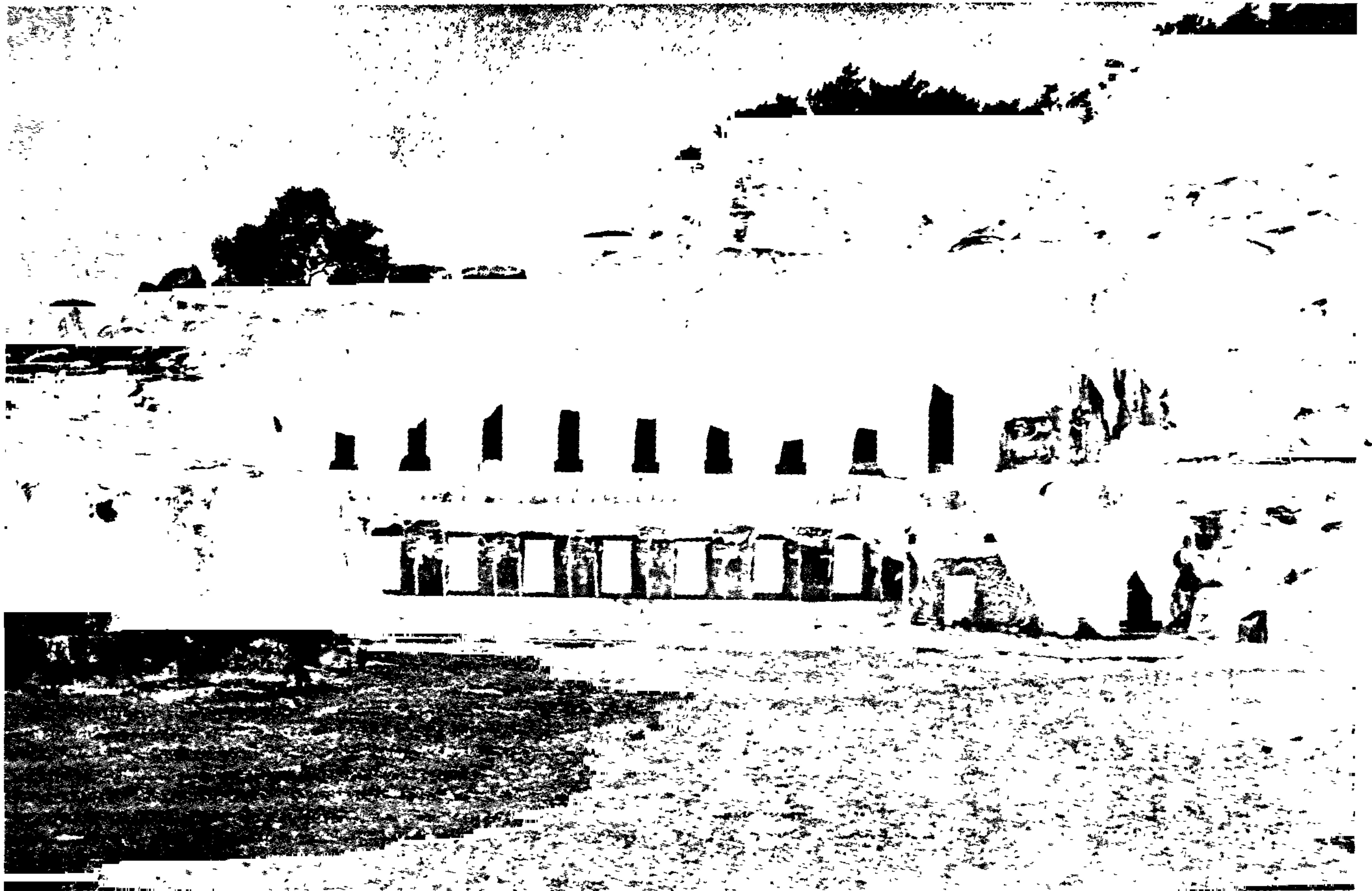
a. Facade of Cave 3.



b. Interior, back wall of the hall with the stupa relief in the Centre.



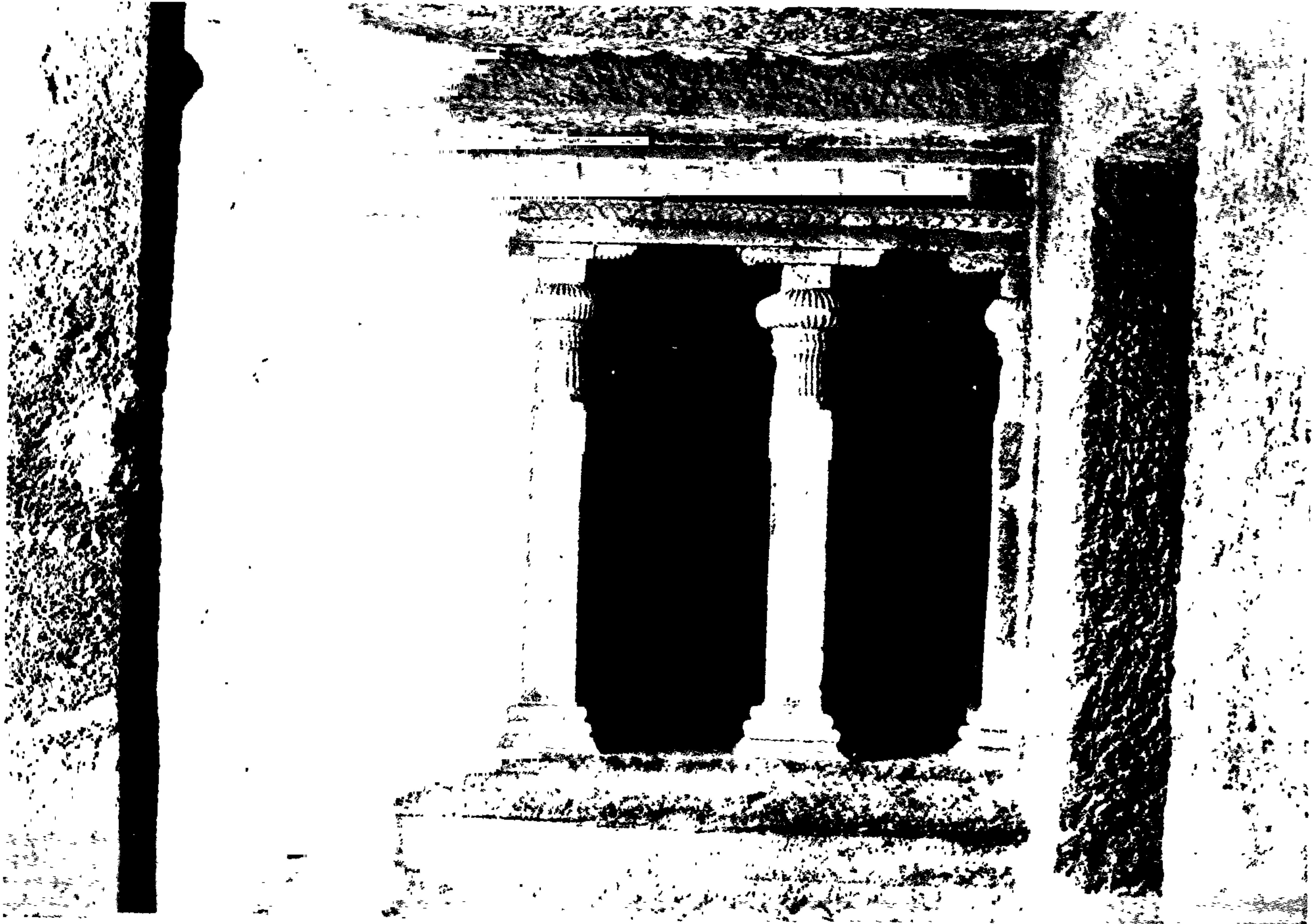
c. A view of the Verandah—Note the relievo decoration on the central-doorway.



a. Udayagiri, Orissa, Cave 1, Rāṇigumpha.



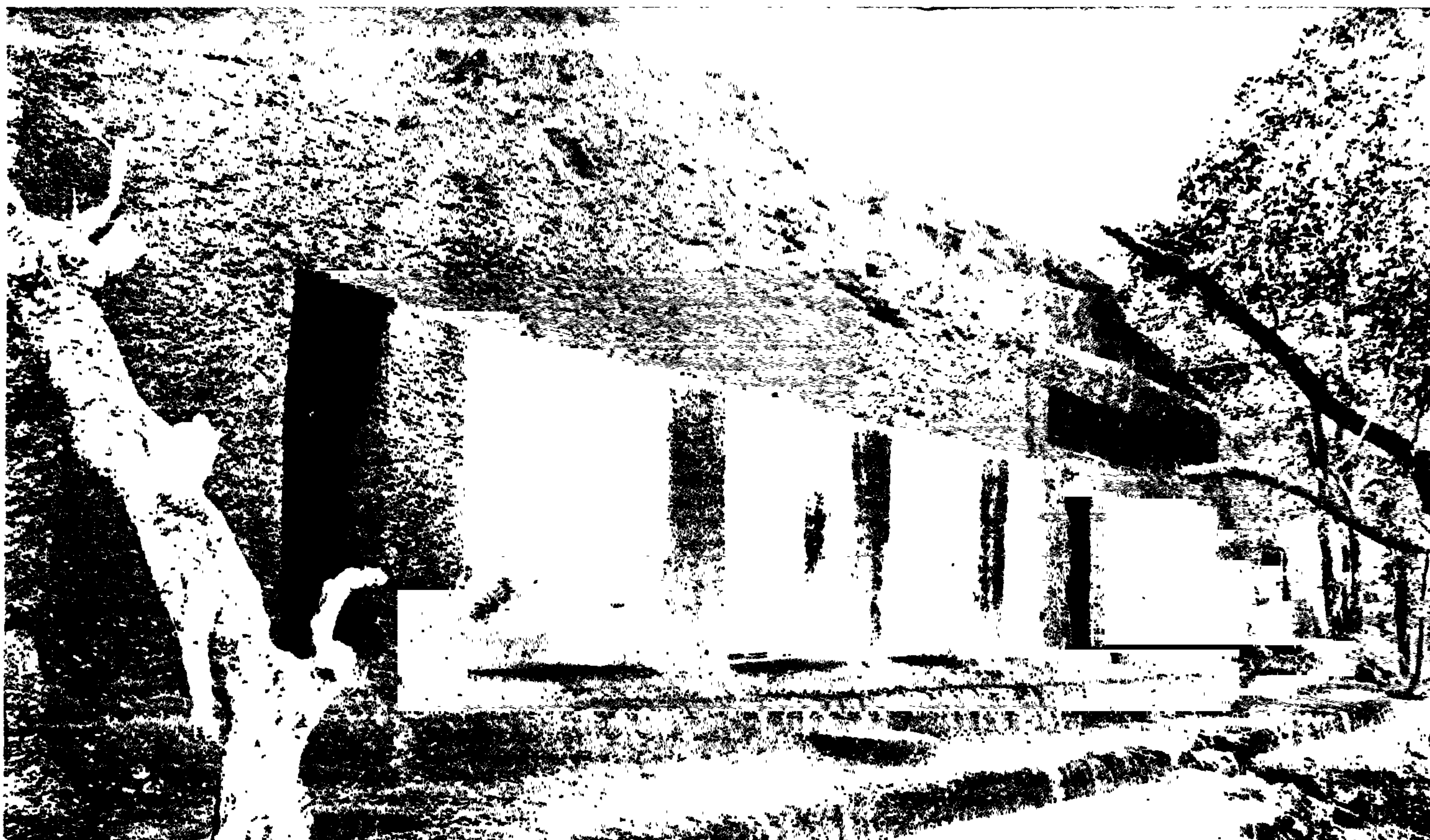
b. Udayagiri, Orissa, Cave 10, Gaṇeśgumpha.



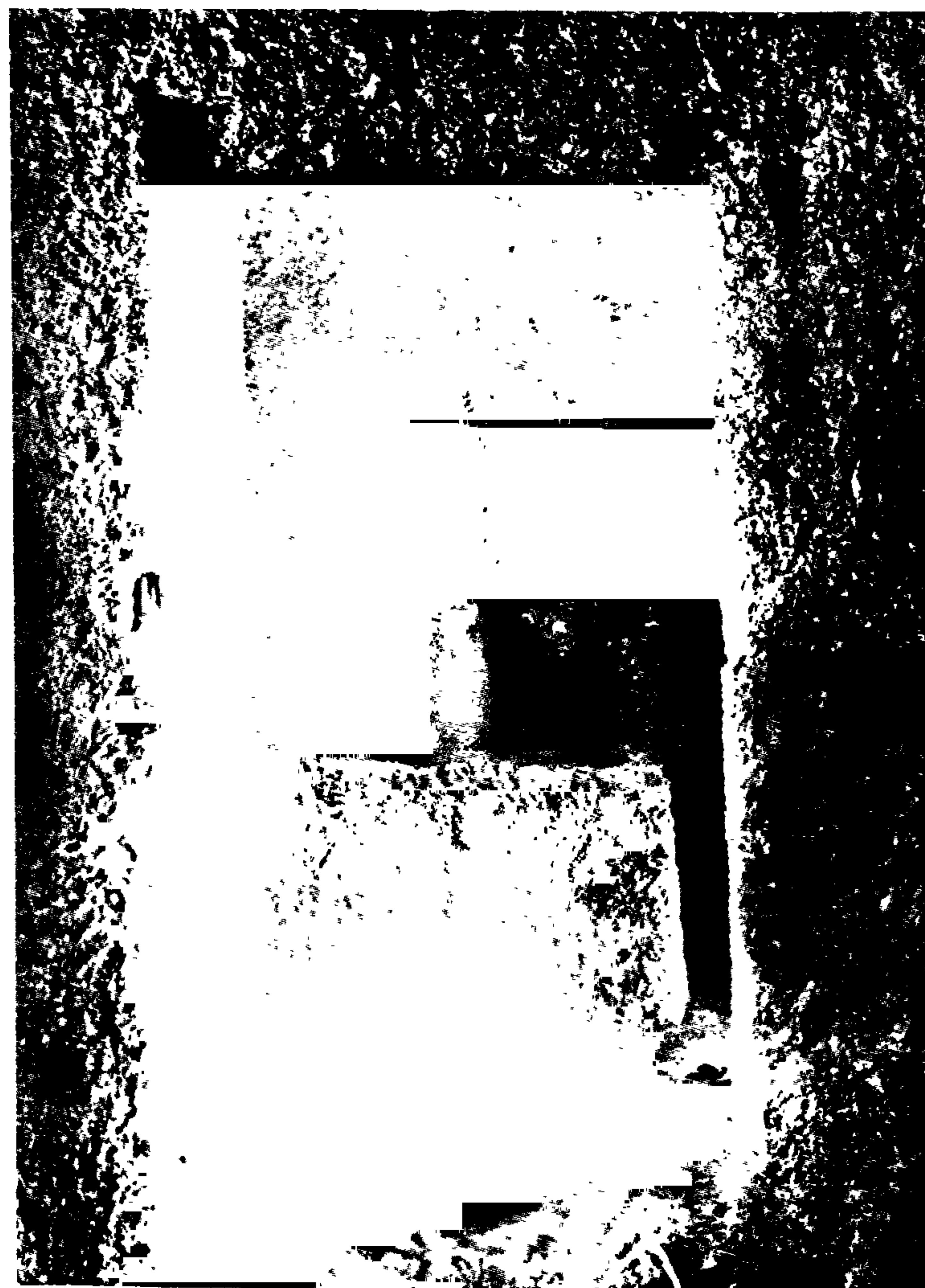
a. Kanheri, Darbar Hall, Verandah, Pillars of the side chapel.



b. Kanheri, Residential Caves.



a. Rock-cut Temples, view from North-west.

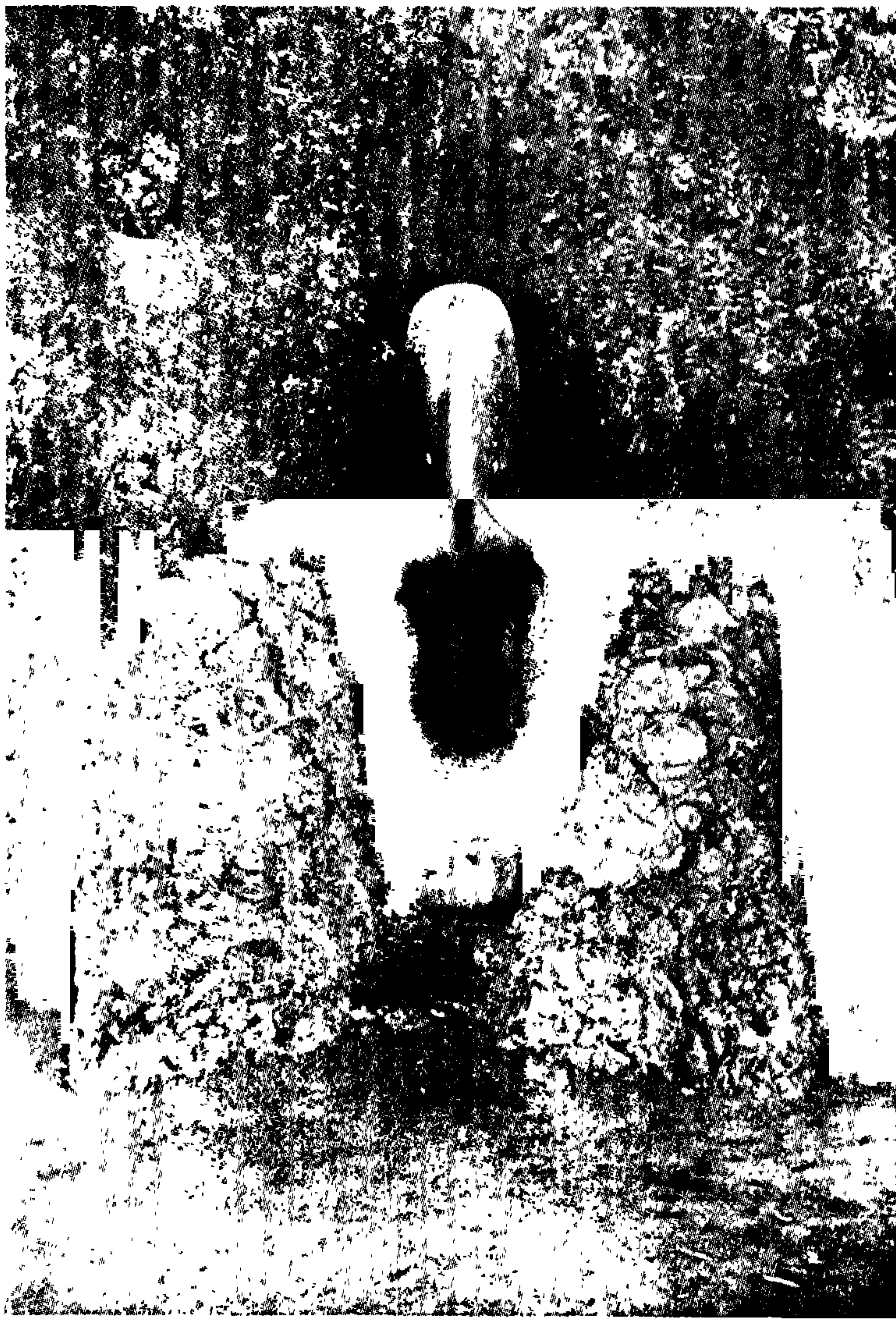


b. Shrine-Chamber No. 1 with liṅga and pīṭha.

CAVE TEMPLES OF GOA



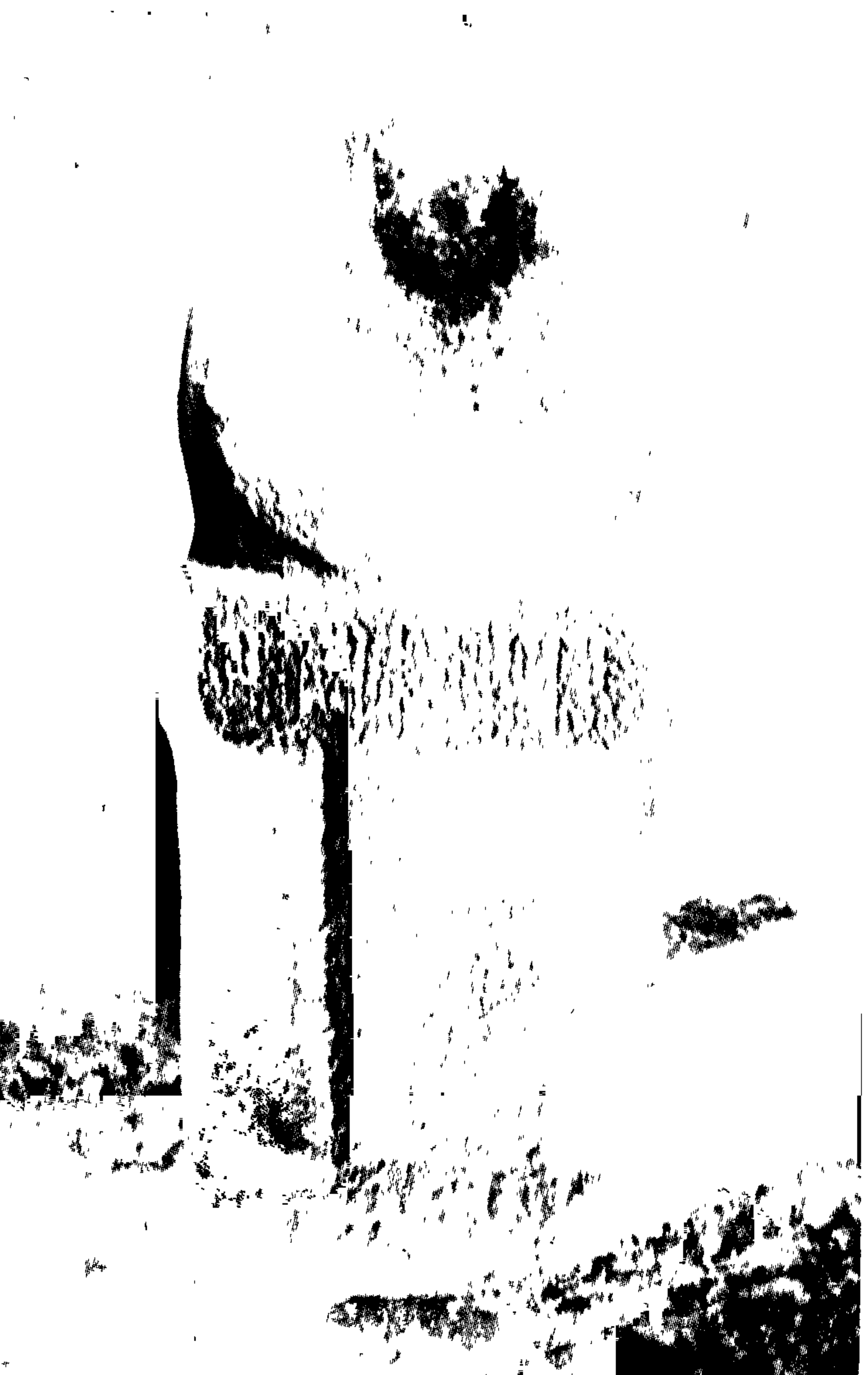
a. Liṅga and Pīṭha in Shrine—Chamber No. 5.



b. Liṅga and Pīṭha in Shrine—Chamber No. 3.



a. Shrine-chamber of Cave No. 17—Udayagiri (M.P.).



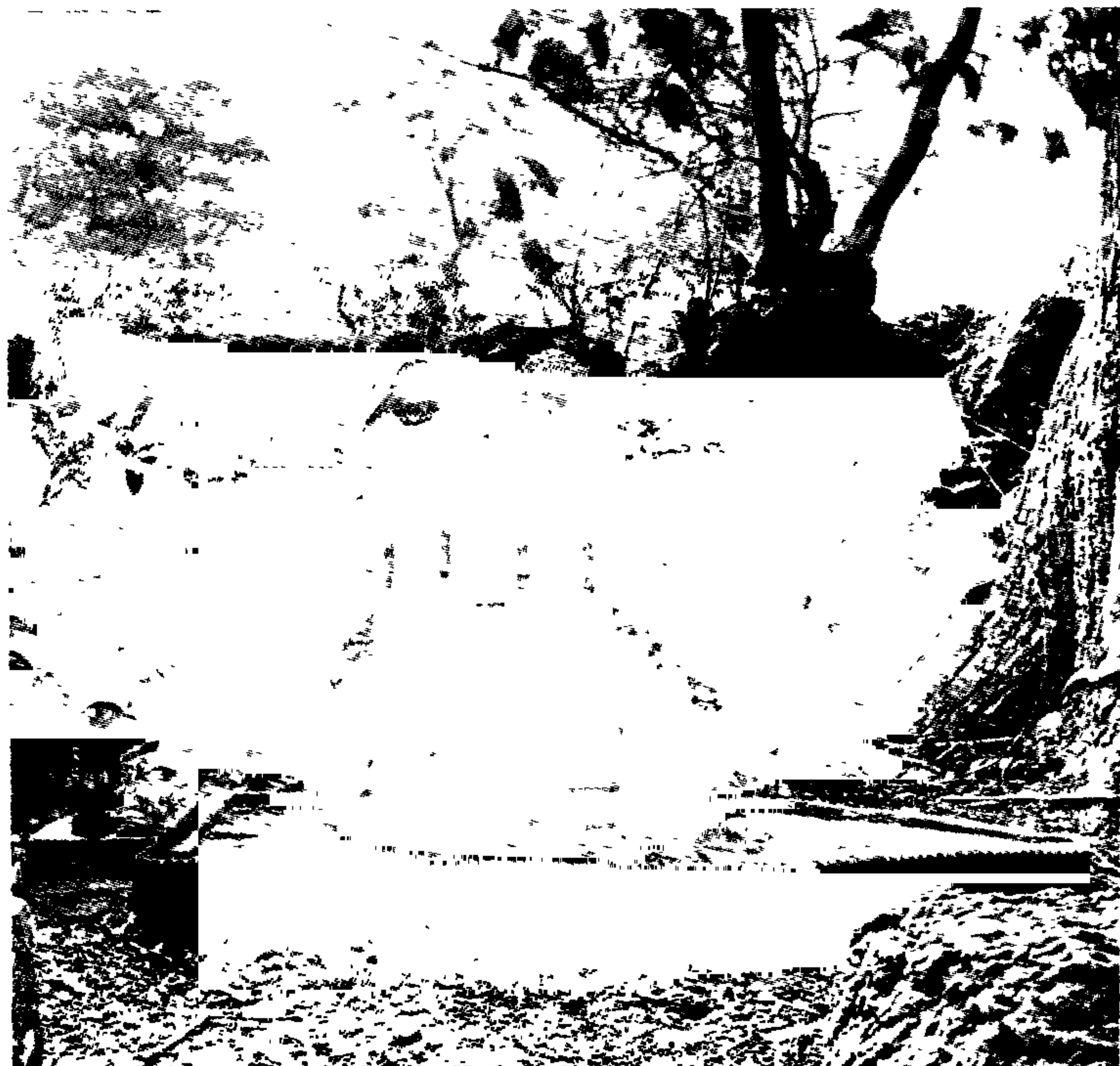
b. Disc-Topped cult-image in shrine—Chamber No. 2, Aravelam.



a. Pointed-Cult image in shrine—Chamber No. 4 Aravelam.

c. Image called Pūrvāchārya in the temple of Śiva, Siolim-Vada. ↓





b. Two images on a common pīṭha, Bhutanātha shrine, Pernem.

d. Liṅga in shrine—Chamber No. 3 Aravelam. ↓

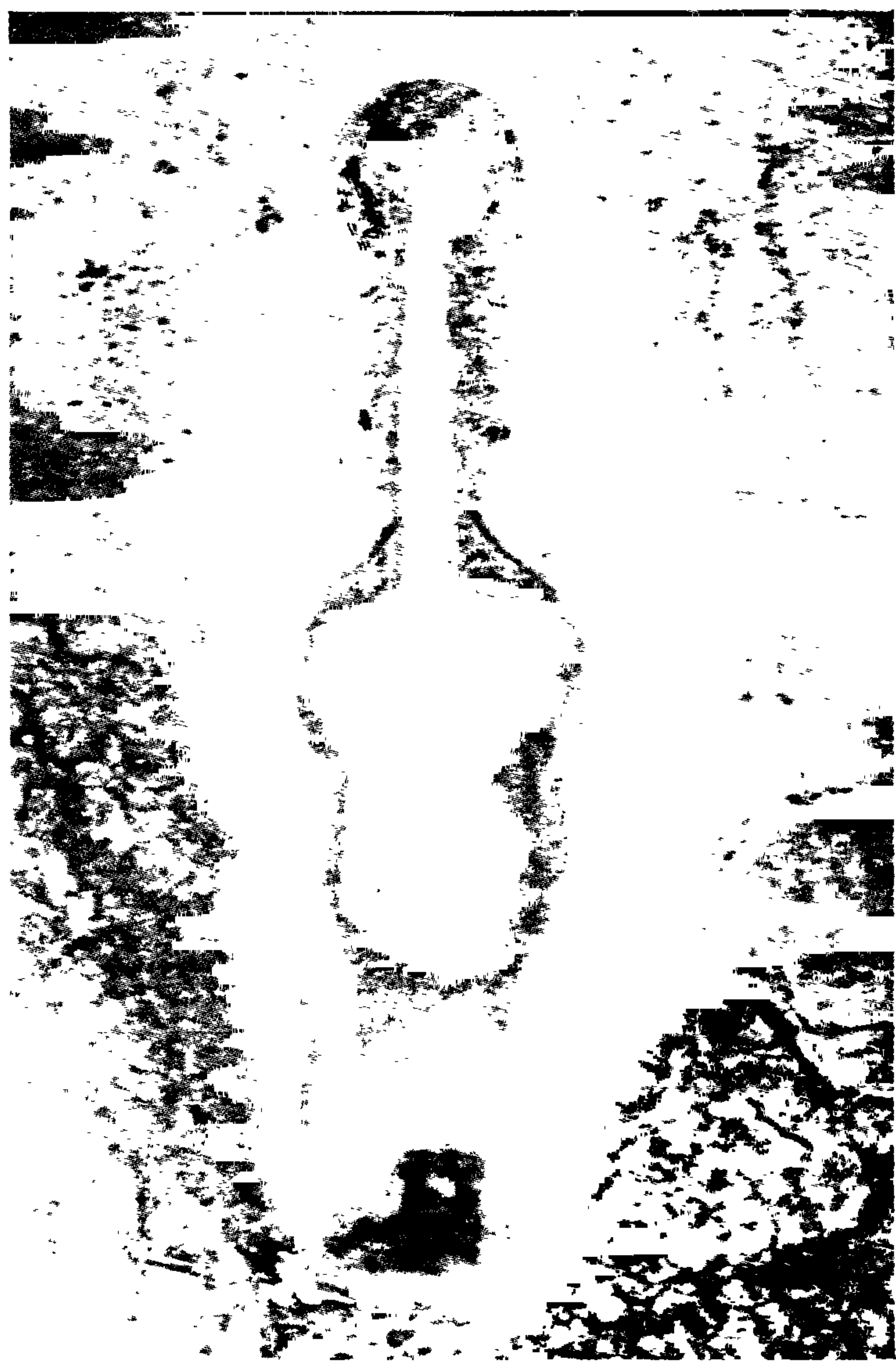


Plate XL



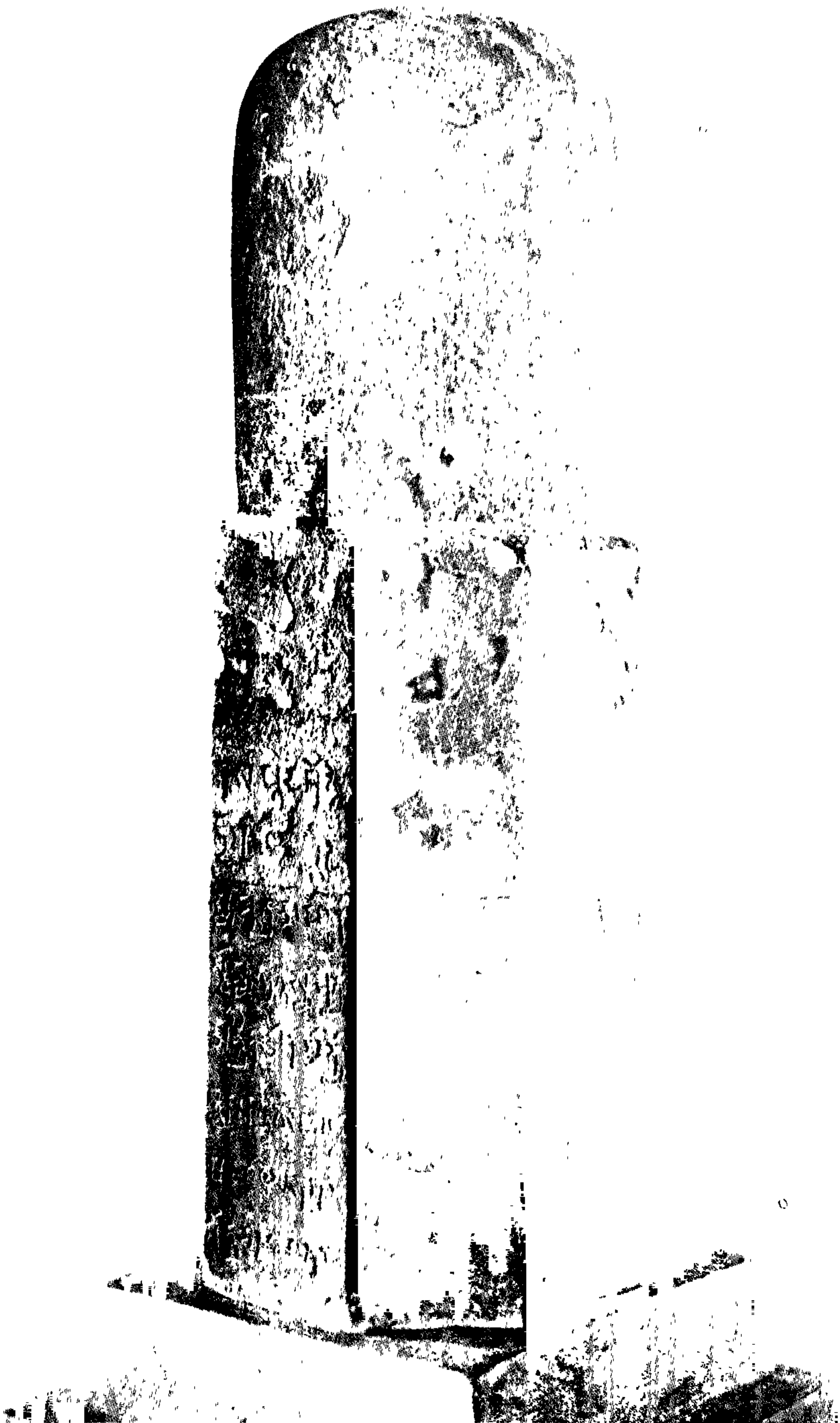

a. Inscribed and dated liṅga from Karamdaṇḍa, District Faizabad (Now in State Museum, Lucknow).



b. Liṅga with Śiva, at Gudimallaur, Andhra Pradesh.



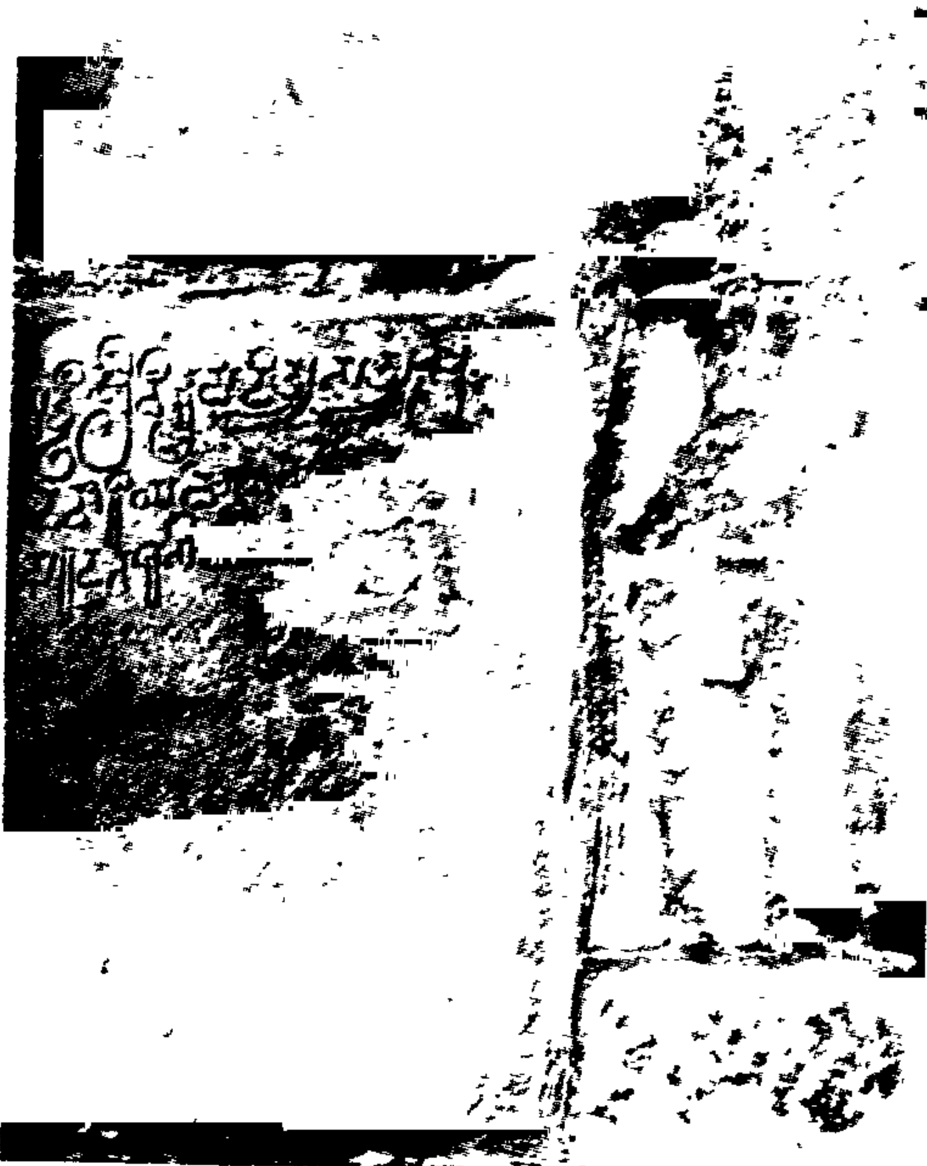
a. Relief with adoration of Liṅga in Pīṭha, Kuṣāṇa (now at Government Museum, Mathura).



b. Liṅga and pīṭha, Cave No. 1, Badami.



a. General view of the main memorial shrine of Vikramaditya II.



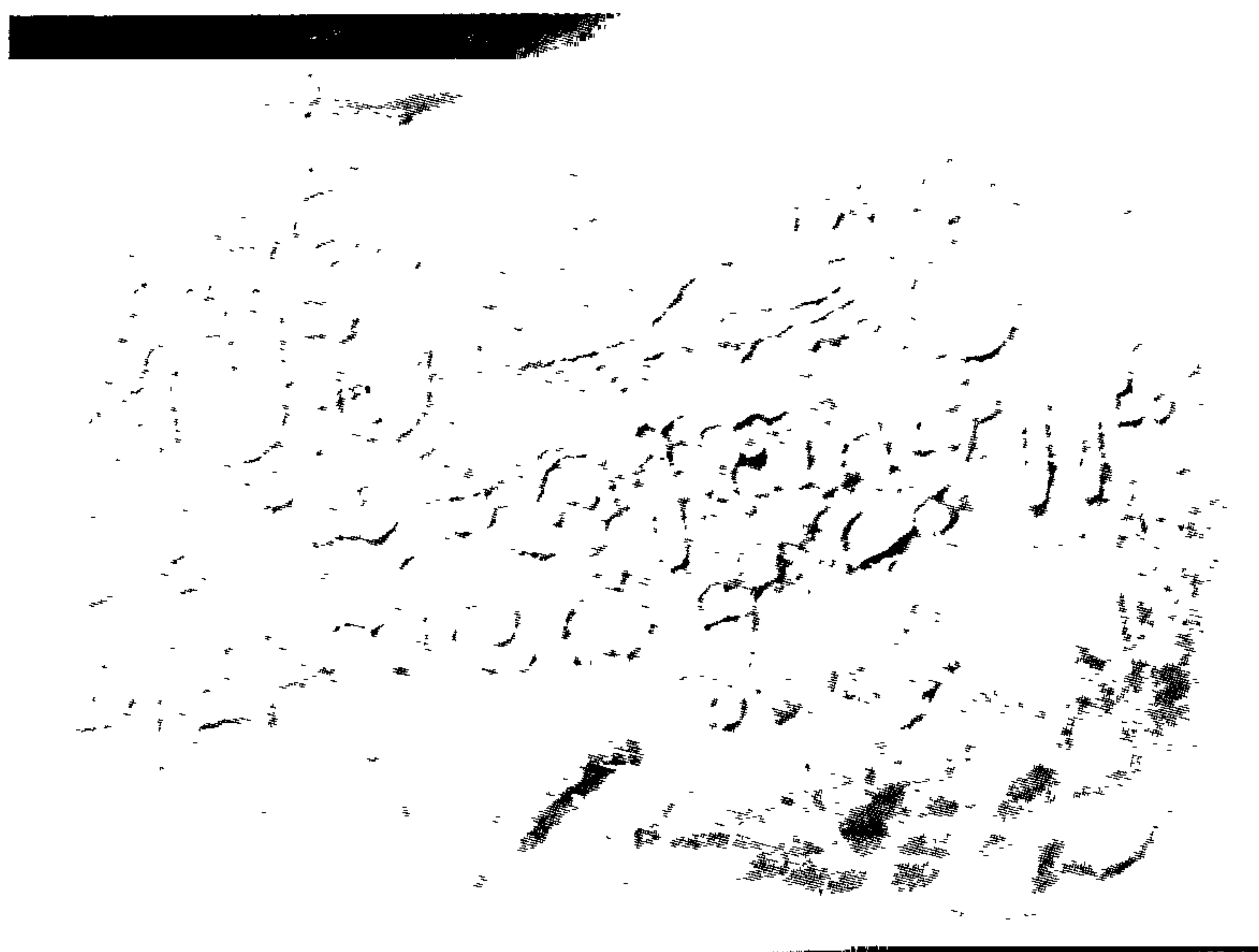
←b. Dvarpala with mace and royal parasol (to the left of the entrance).



c. Dvarapala with mace and royal parasol (to the right of the entrance). →



d. Lintel with Uma-Maheshvara reclining on the Nandi.



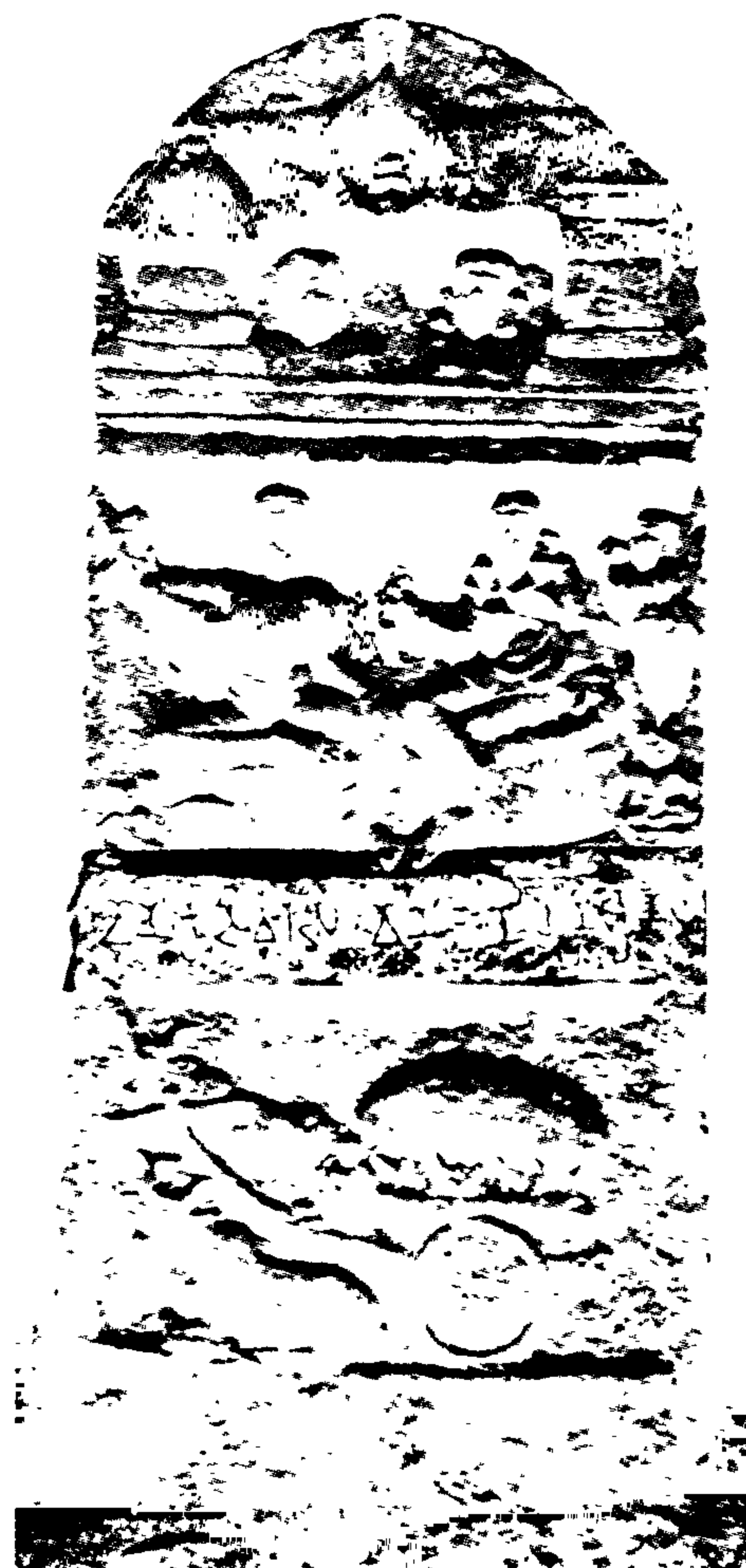
a. Inscription on the front wall, to the left of the main entrance.



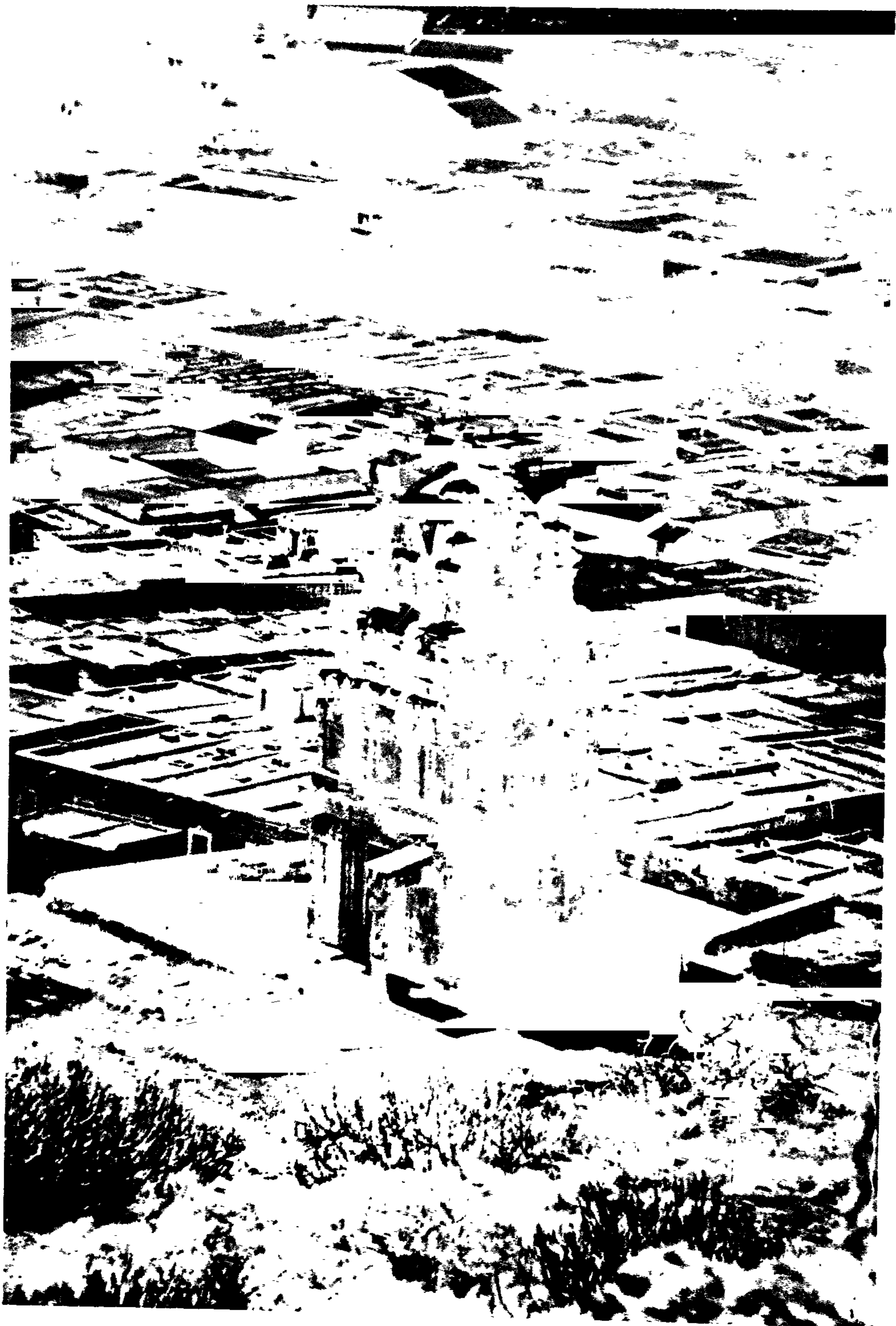
b. Memorial in three registers carved on a rock behind the main shrine.



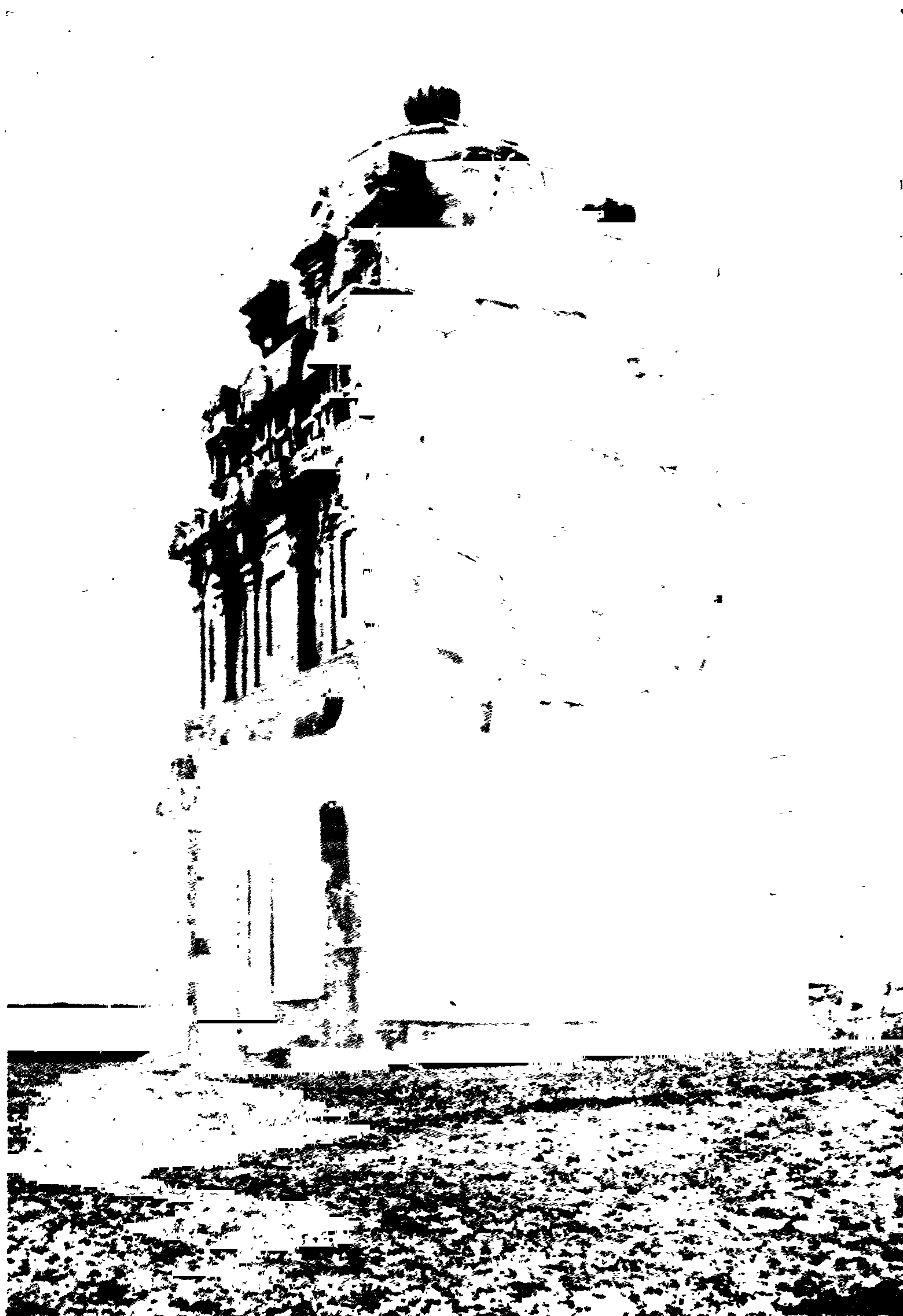
c. Nagaraja



d. Memorial slab or merchant Vira and his wife from Jewargi (2nd-3rd century A.D.).

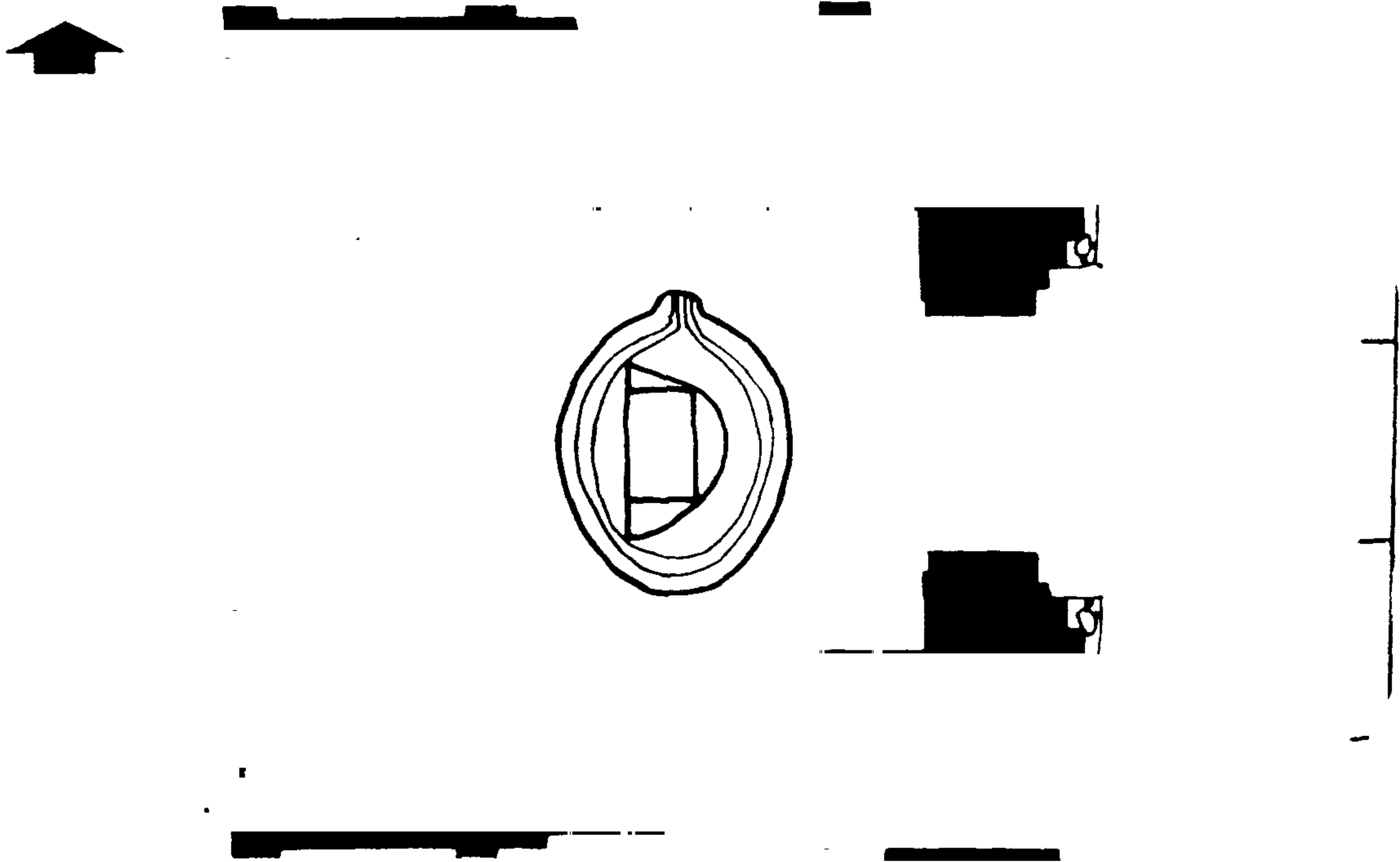


Fragmentary *Vimāna*, on the north fort—General view.



Fragmentary *Vimāna*—Closer view.

EARLY CHALUKYA VAIṢṆAVA
TEMPLE—BADAMI





Shrine—doorway.

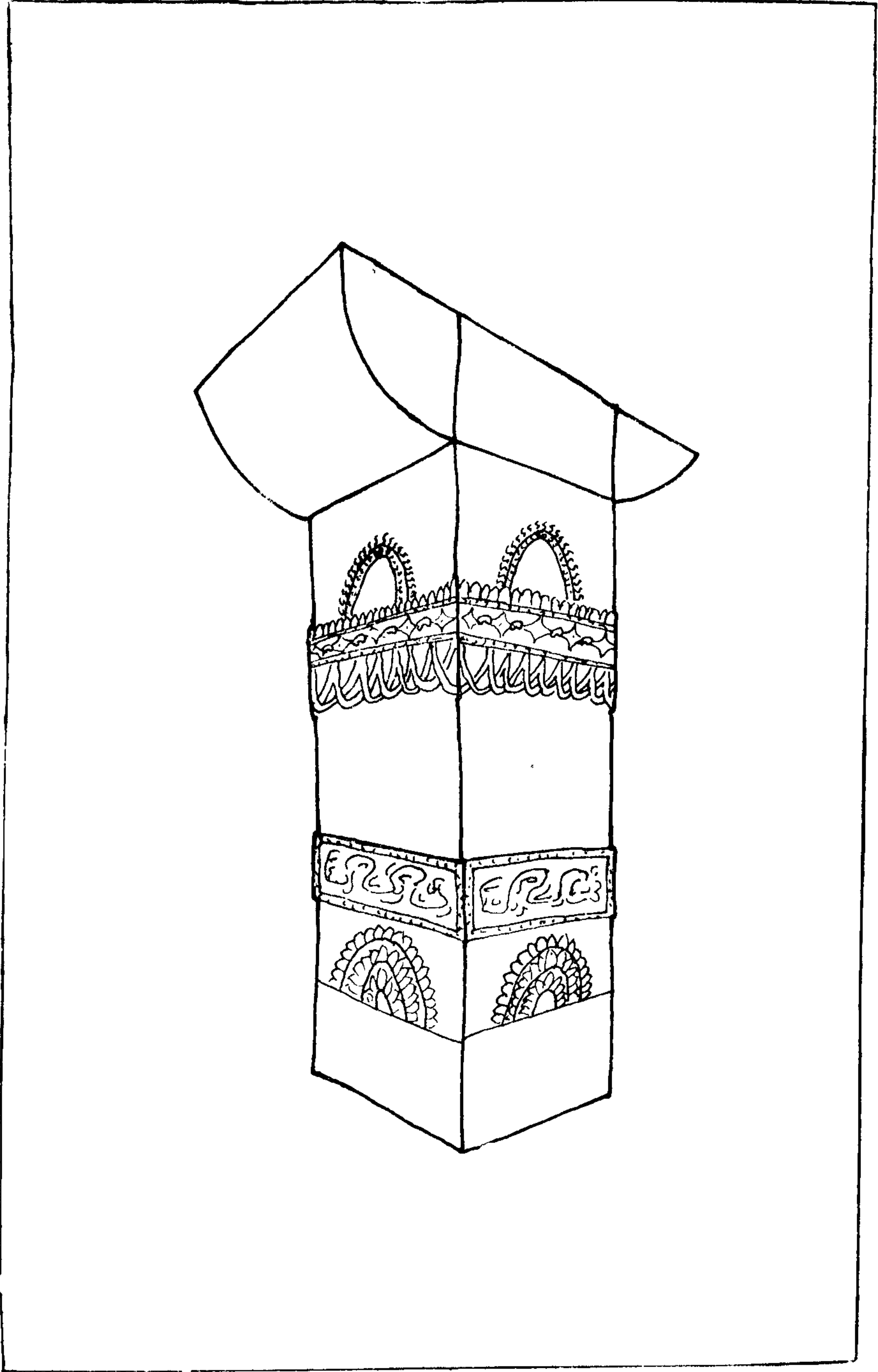


Karṇakuta of Śikhara of the shrine.



Interior lintel, still in place.

EARLY CHALUKYA VAIṢṆAVA TEMPLE—BADAMI

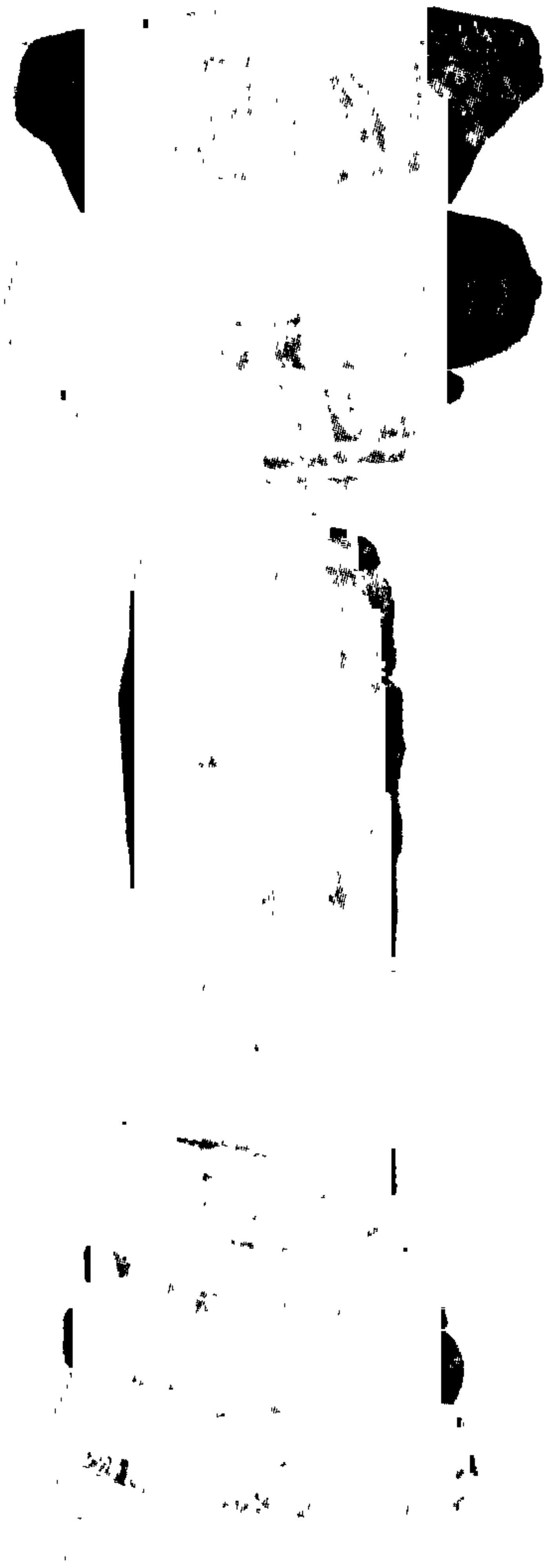


a. Reconstruction of square pillar.



b. Loose wall slab with pilaster.

EARLY CHALUKYA VAIṢṆAVA
TEMPLE—BADAMI



a. Loose Pillar Parts, reassembled in photographic College.

b. Verandah Pillars, Cave III, Badami.



Interior Lintel (Reconstructed ?) in place.



a. Lintel fragment now in Prince of Wales Museum, Bombay.



b. Lintel fragment—detail.



Harihara, built into the Gateway wall.

EARLY CHALUKYA VAISNAVA TEMPLE—BADAMI



a. Unidentified deity, built into the Gateway wall.

b. Porch—dvārapāla.



a



b



c

a to c. Loose Lintels built into the gateway with reliefs depicting episodes from Bhāgavata.



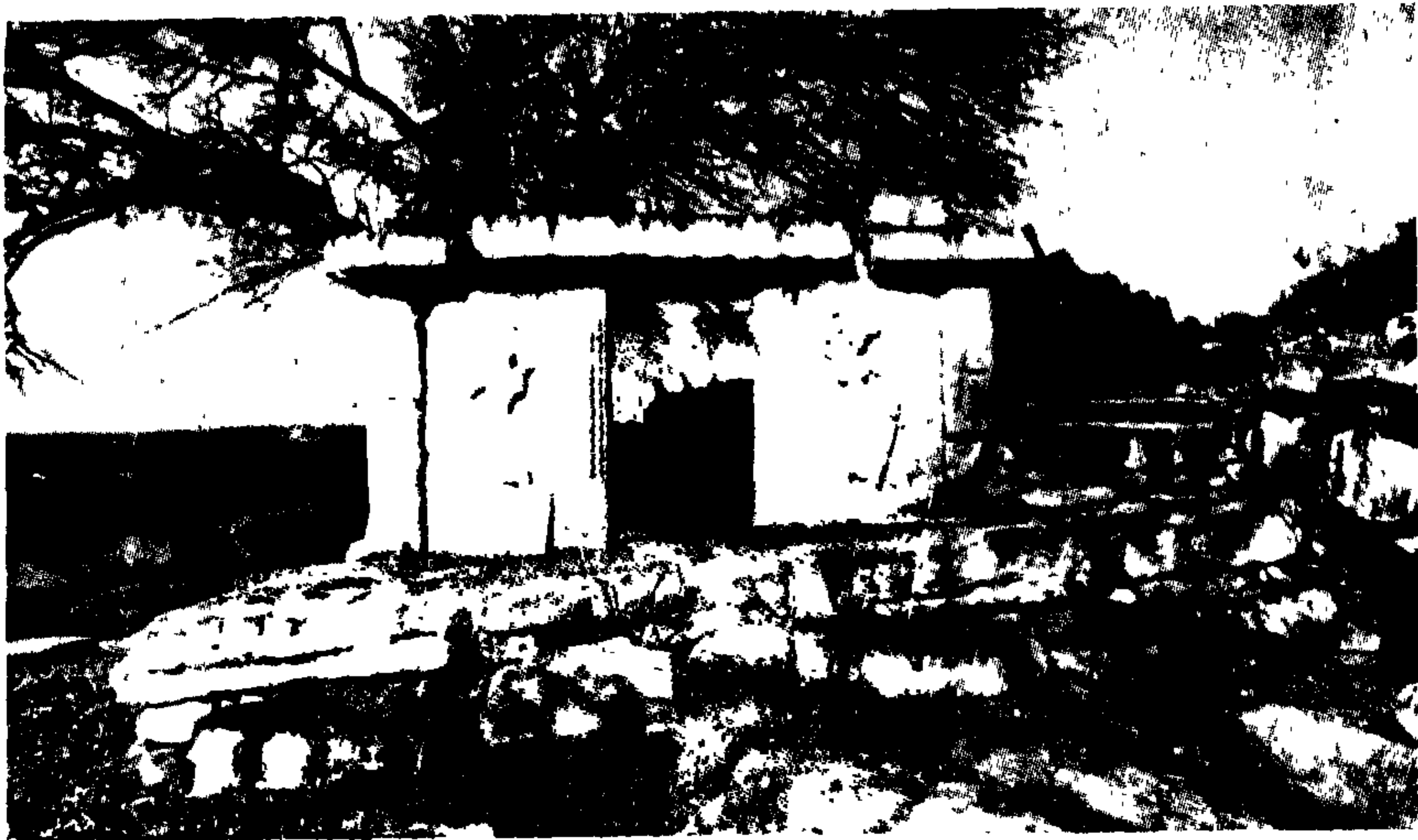
a



b

a-b. Loose lintels built into the gateway with reliefs depicting episodes from Bhāgavata.

DURGA TEMPLE, BACHINGUDDA



a. Durgā temple—General view.



b. Śukanāsa—with dancing Śiva.



c. Mahiṣāsura (Mutilated Sculpture).

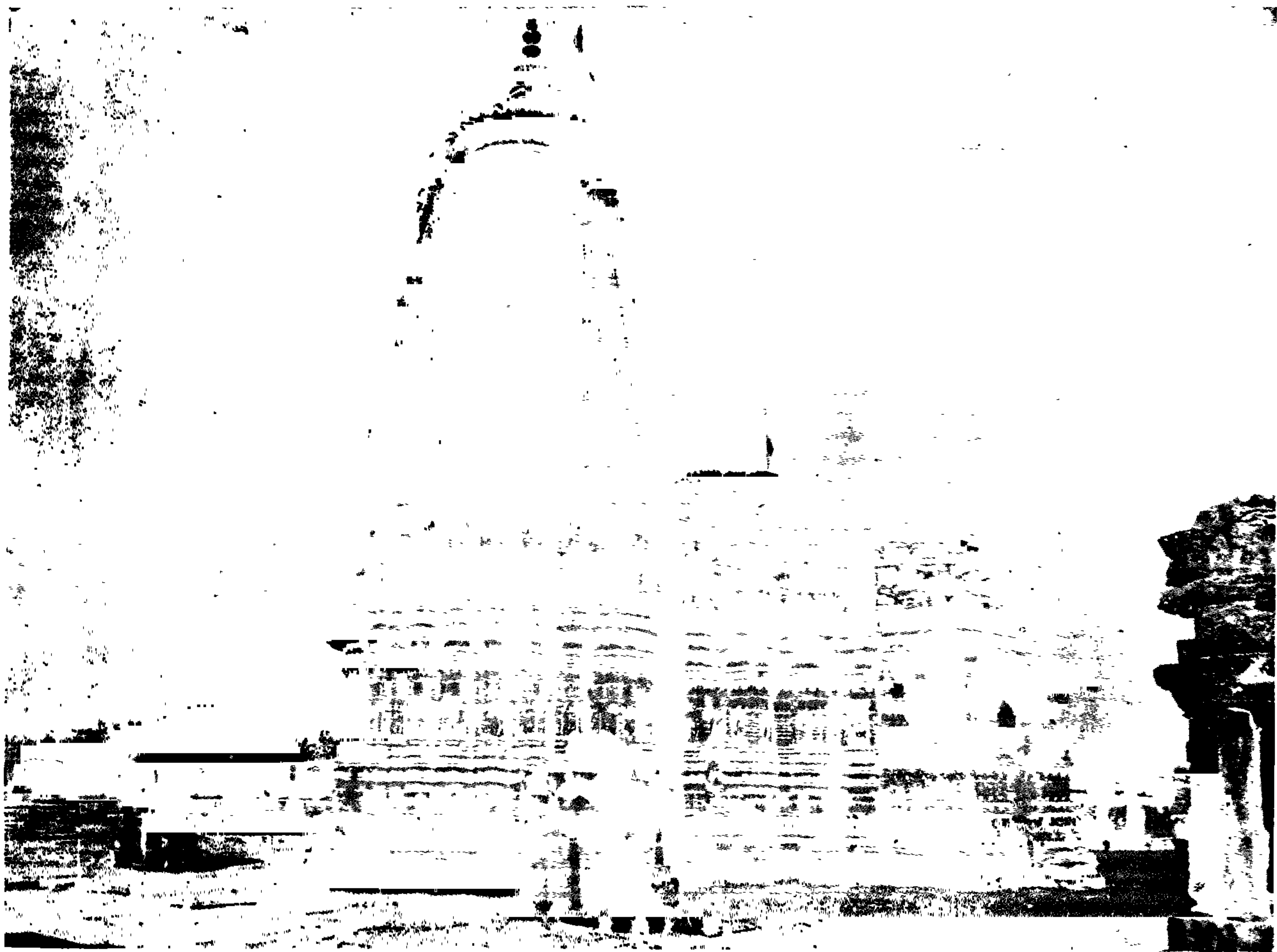


a. Viṣṇu on Ananta.





b b-c. *Chāmaradhāriṇīs.* c

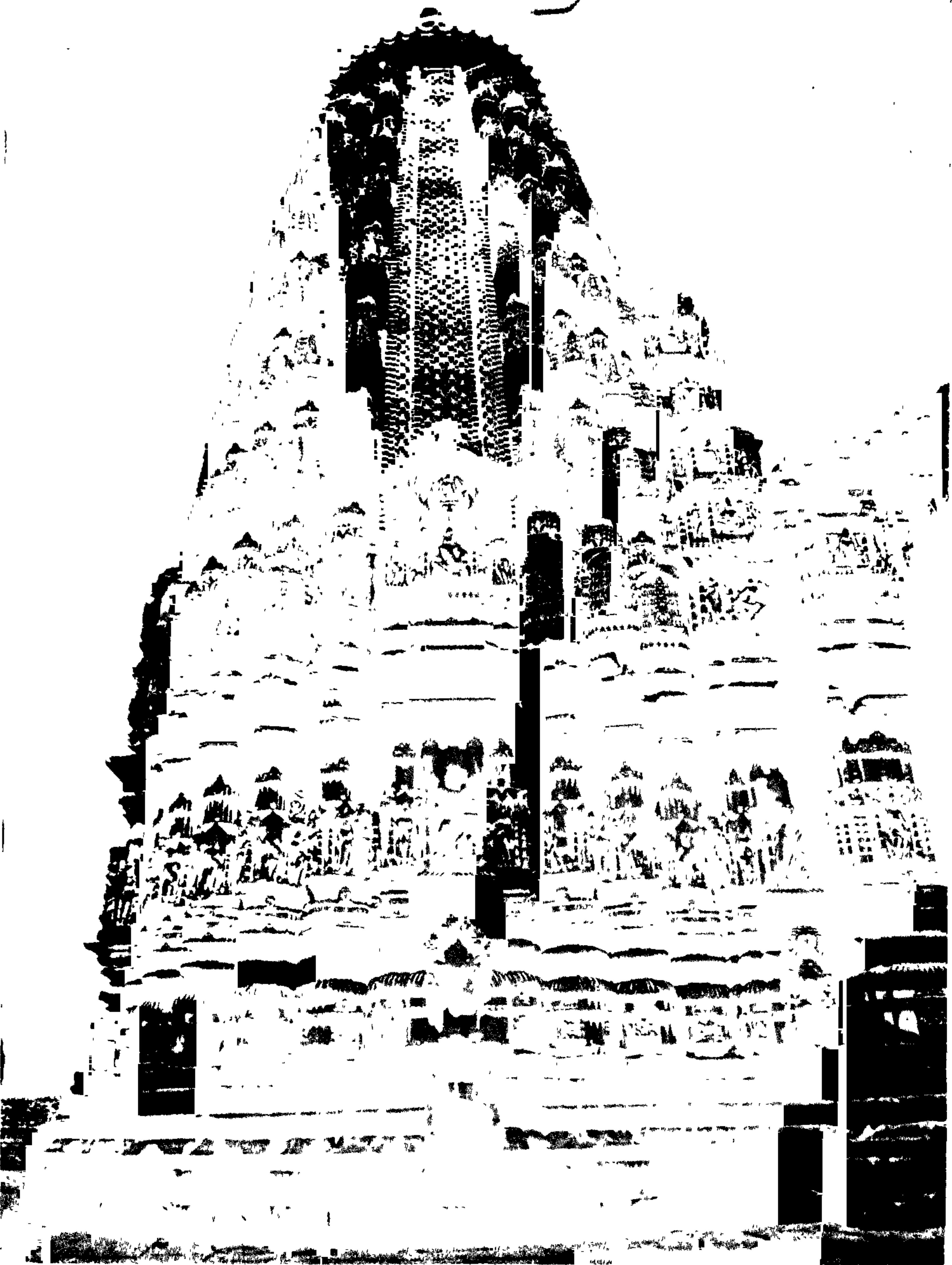


a. Udayeśvara Temple--View from southwest.



b. Samvaraṇa roof of the Gudamaṇdapa.

UDAYESVARA TEMPLE, UDAYAPUR, M.P.

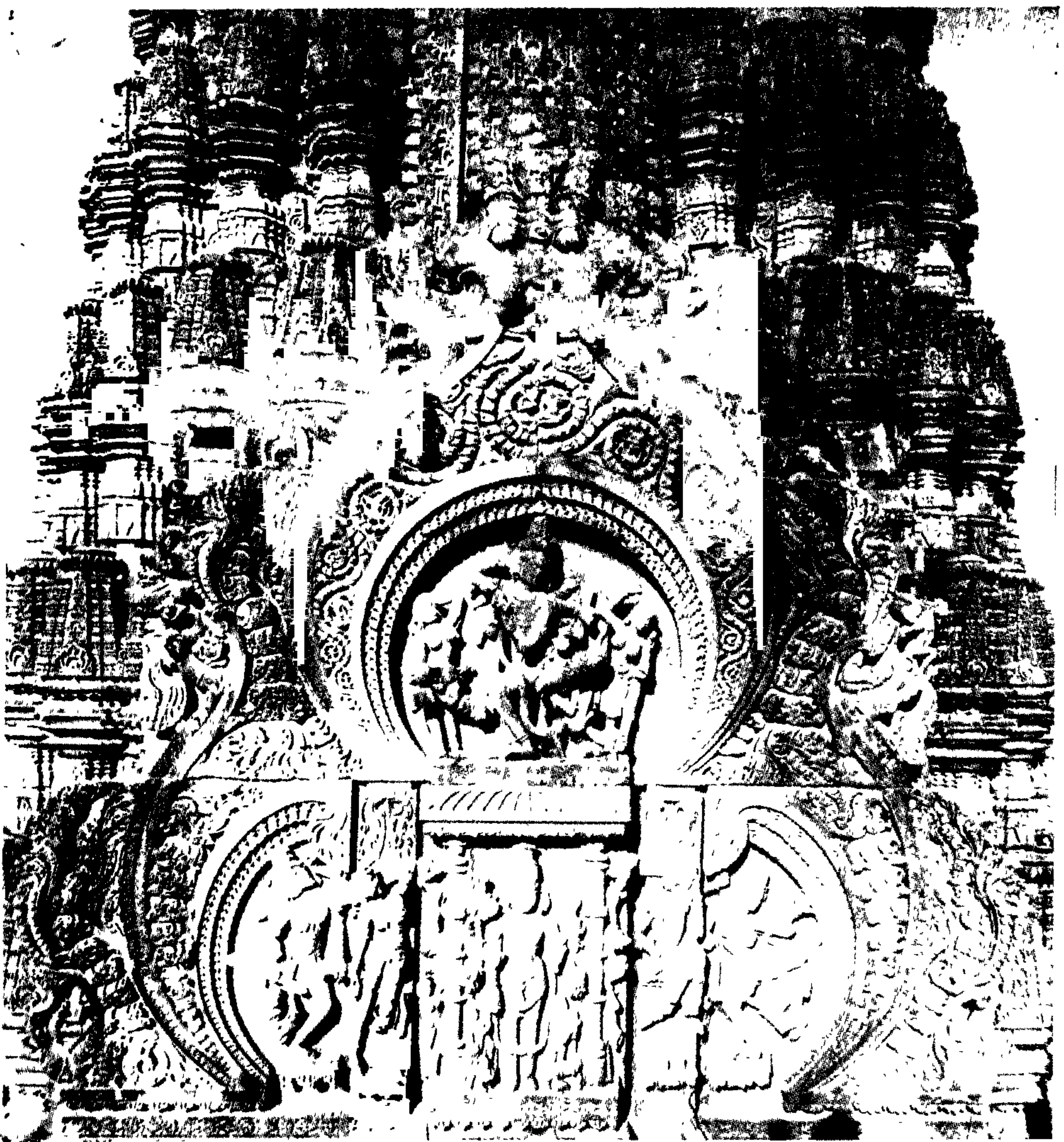


a. View from South.

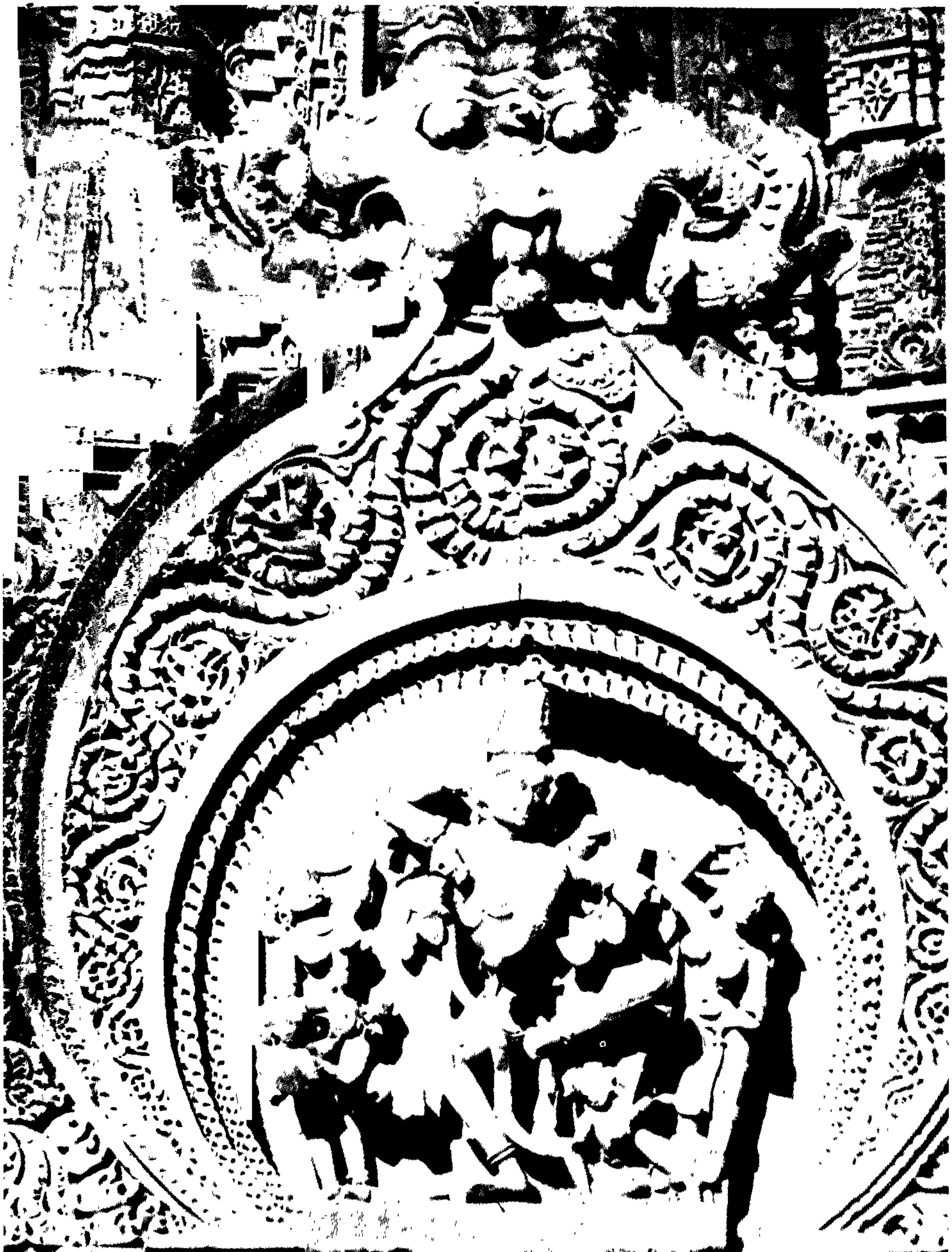


b. Śukanāsa Linking Śikhara with Guḍamaṇḍapa—View from south.

UDAYESVARA TEMPLE, UDAYAPUR, M.P.



a. The large Śukanāsa—front view.



b. Dancing Naṭarāja—details of the Śukanāsa,



↑ a. Pārvatī—details of the Śukanāsa. ↓ b. Sarasvatī.



Plate LXIV

UDAYESVARA TEMPLE, UDAYAPUR, M.P.

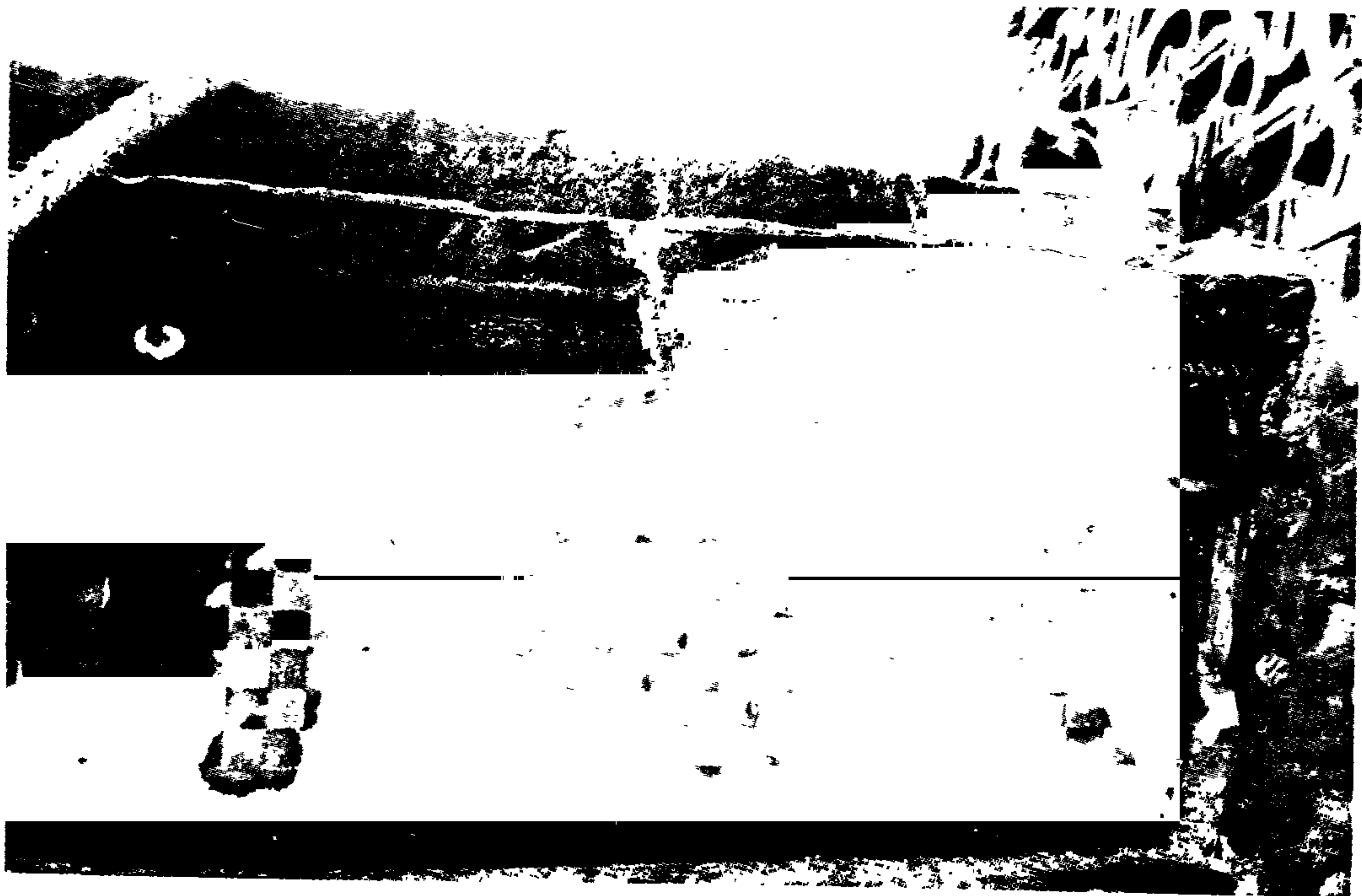


↑ a. Chāmuṇḍā facing south and Pārvatī facing east—Śukanāsa, Southeast base.
↓ b. Chāmuṇḍā in the third niche on the south side of the Śukanāsa.





a. Pārvatī



b. The crowning of the superstructure of the antarāla slab—north.

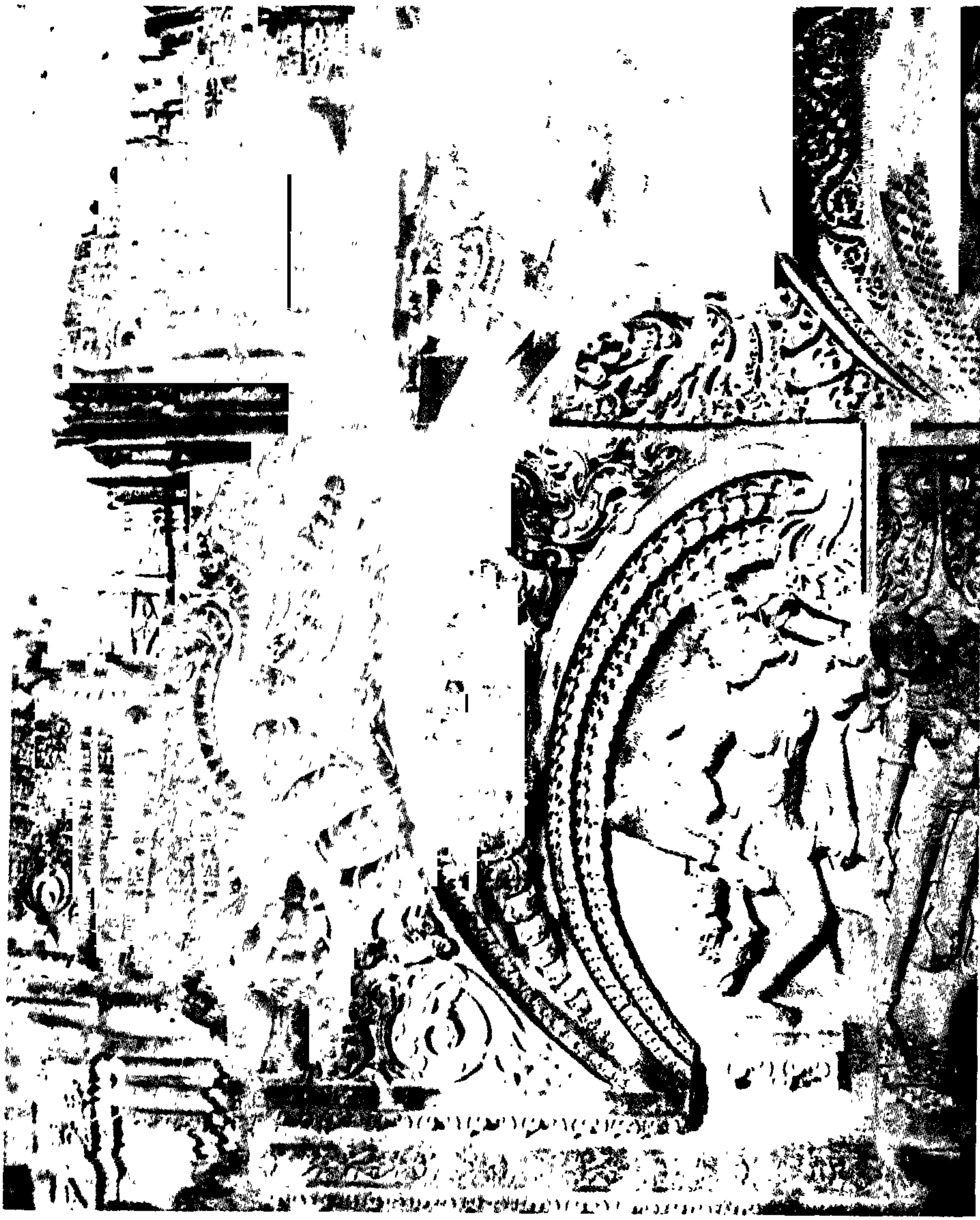


a. Fragment of a lion's head.



b. Torso of male deity, belonging to the group, on top of the Śukanāsa.

UDAYESVARA TEMPLE, UDAYAPUR, M.P.

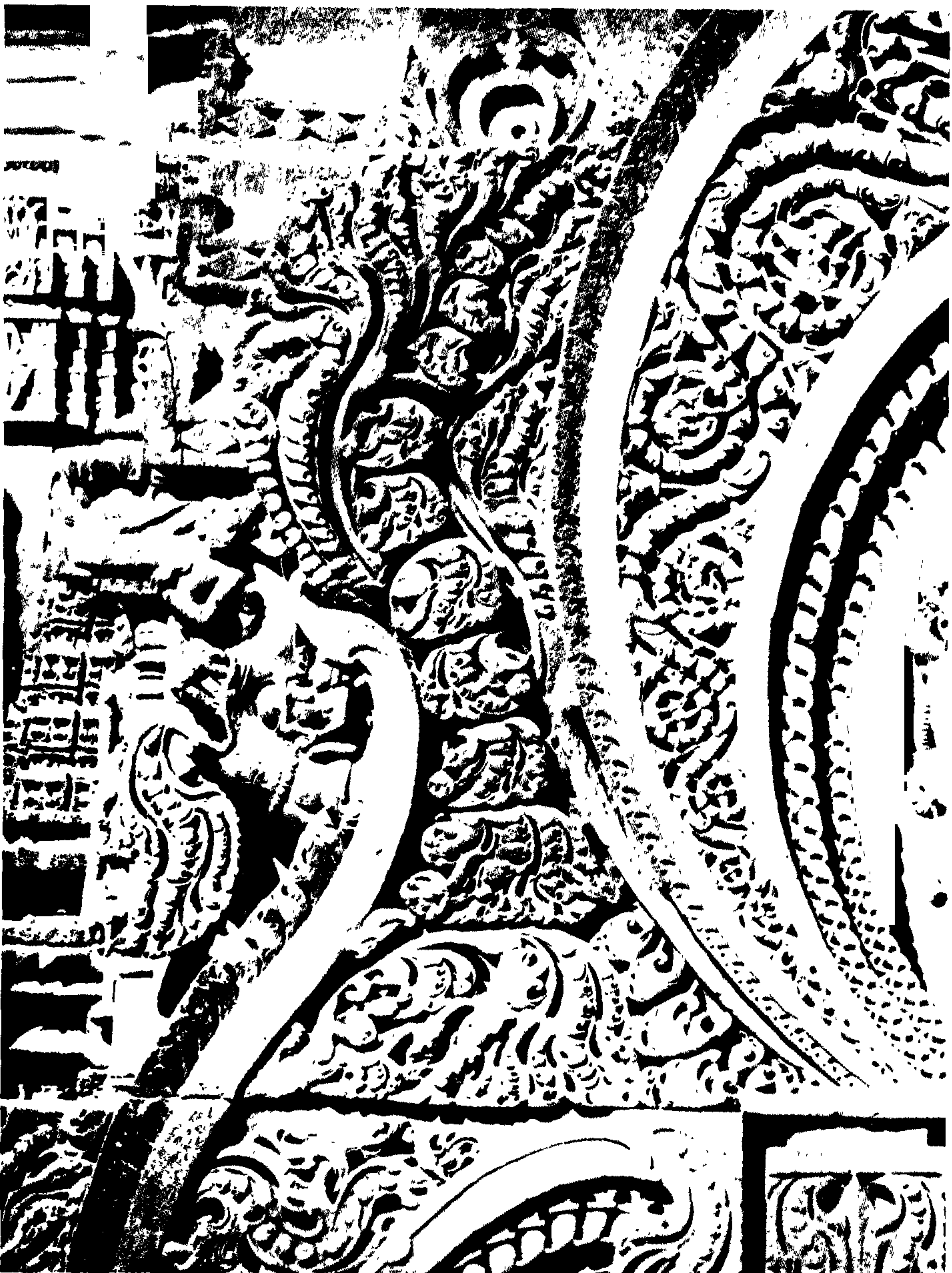


a. Dancing Pārvatī—the foliage on the southern part of the śukanāsa.

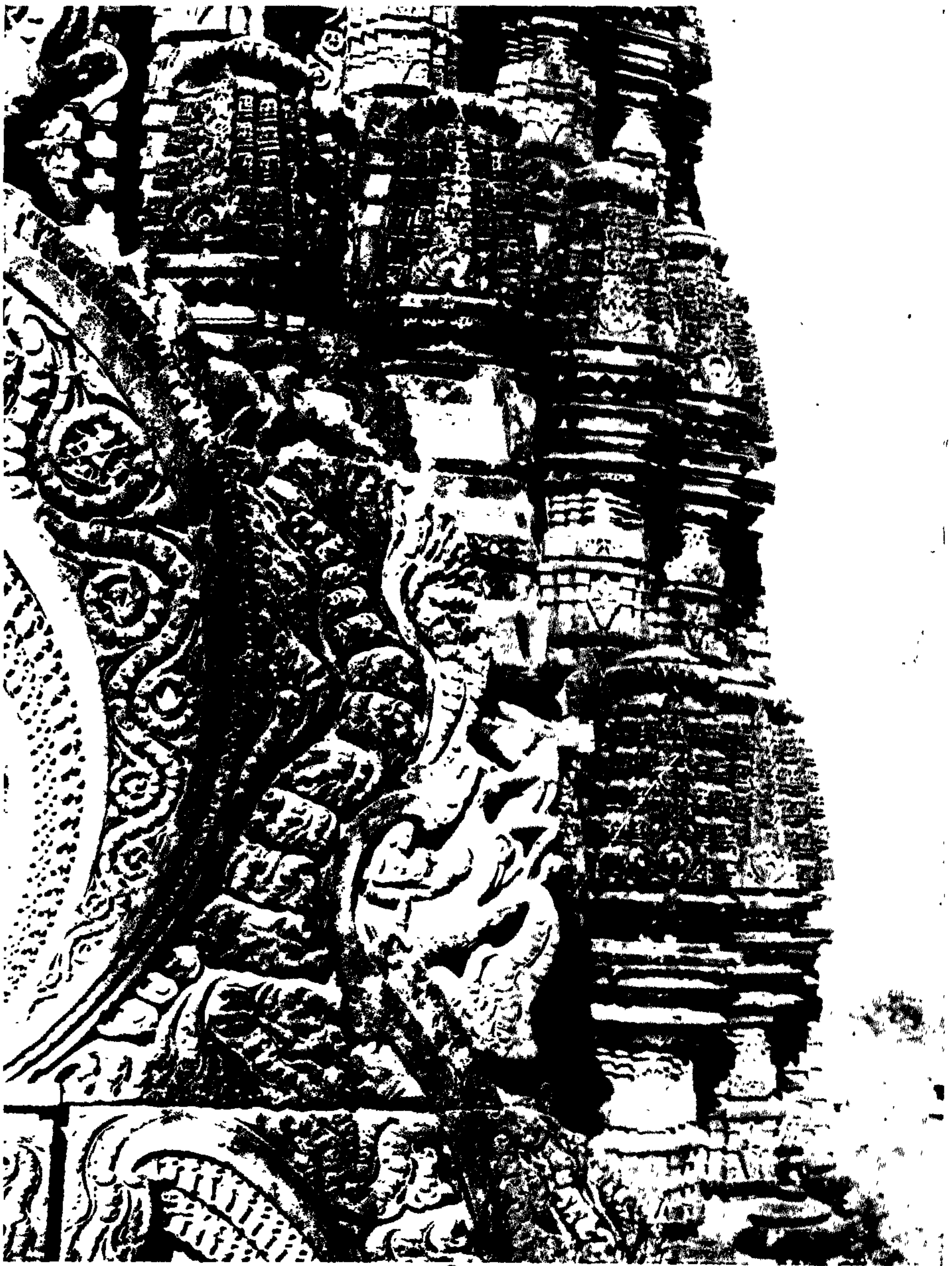


b. *Makra*, with a rider holding *ratnaghaṭa*—detail of the foliage on the southern part.

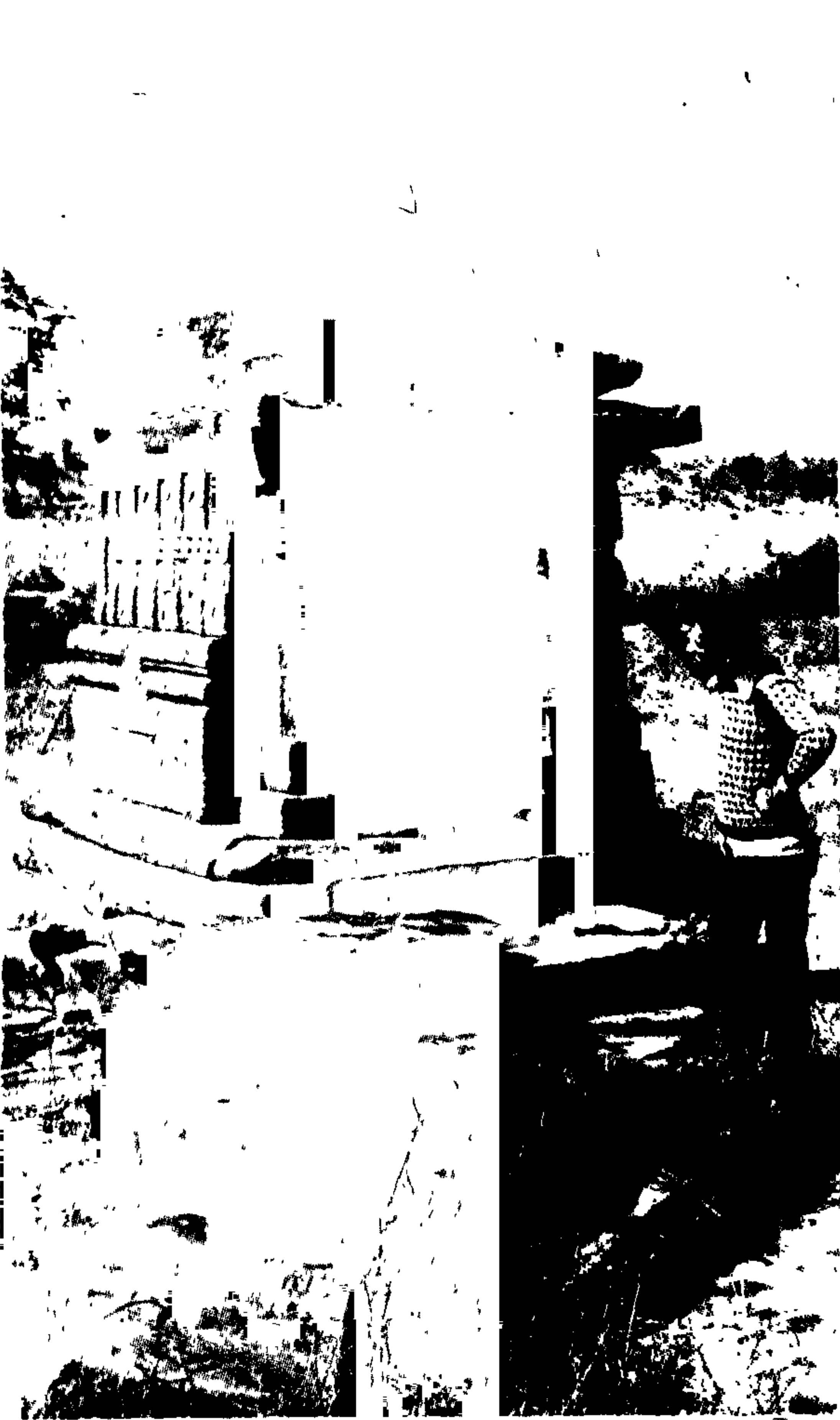
UDAYESVARA TEMPLE, UDAYAPUR, M.P.



a. Details of the foliage on the southern part of the Śukanāsa.



b. Details of the northern part—upper section of the foliage.



a. Temple near Runwasa—General View.



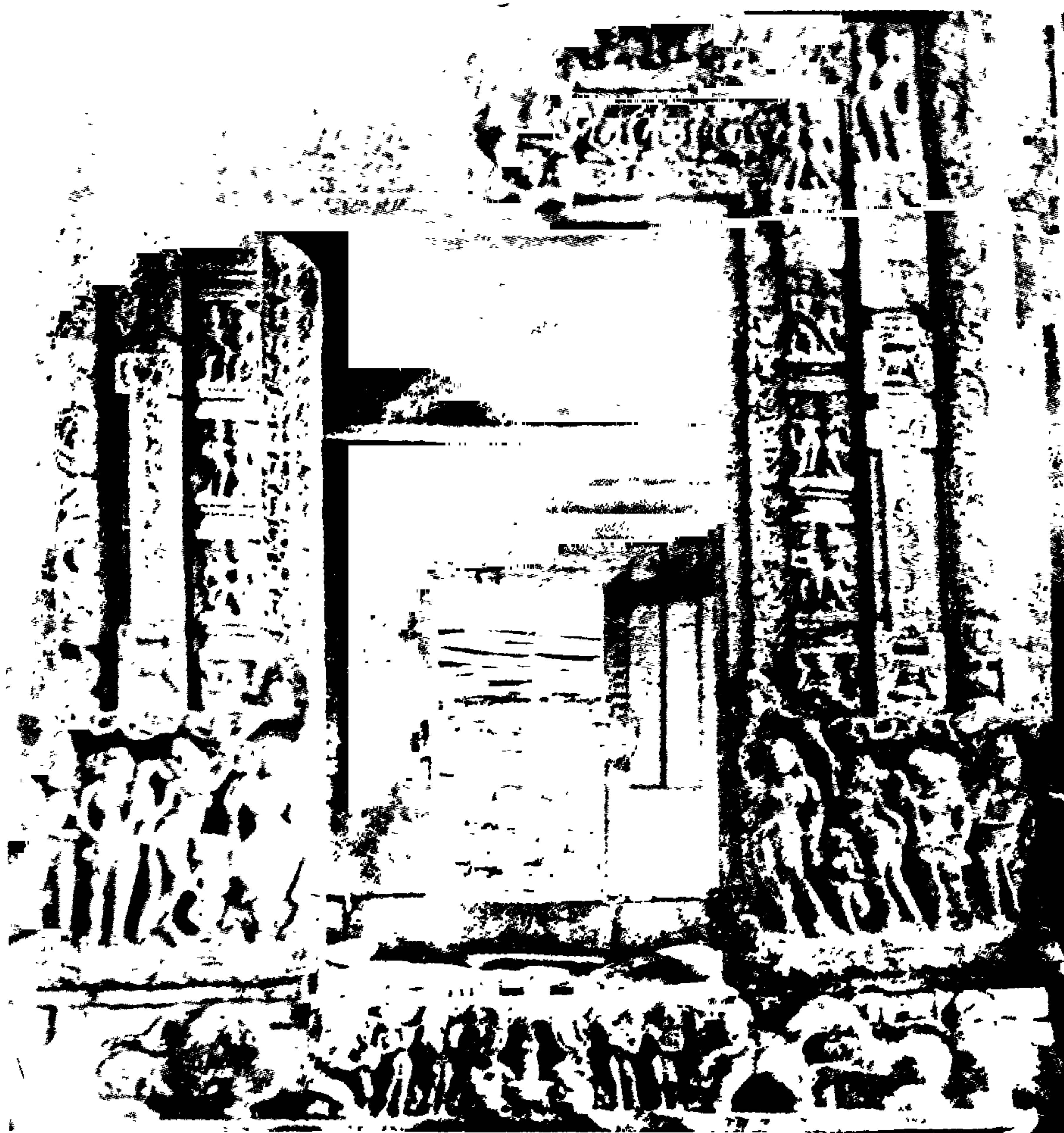
b. Devī Marha, Besro—General View.



↑ a. Devī Marha, Besro—Pillars etc., in the interior.

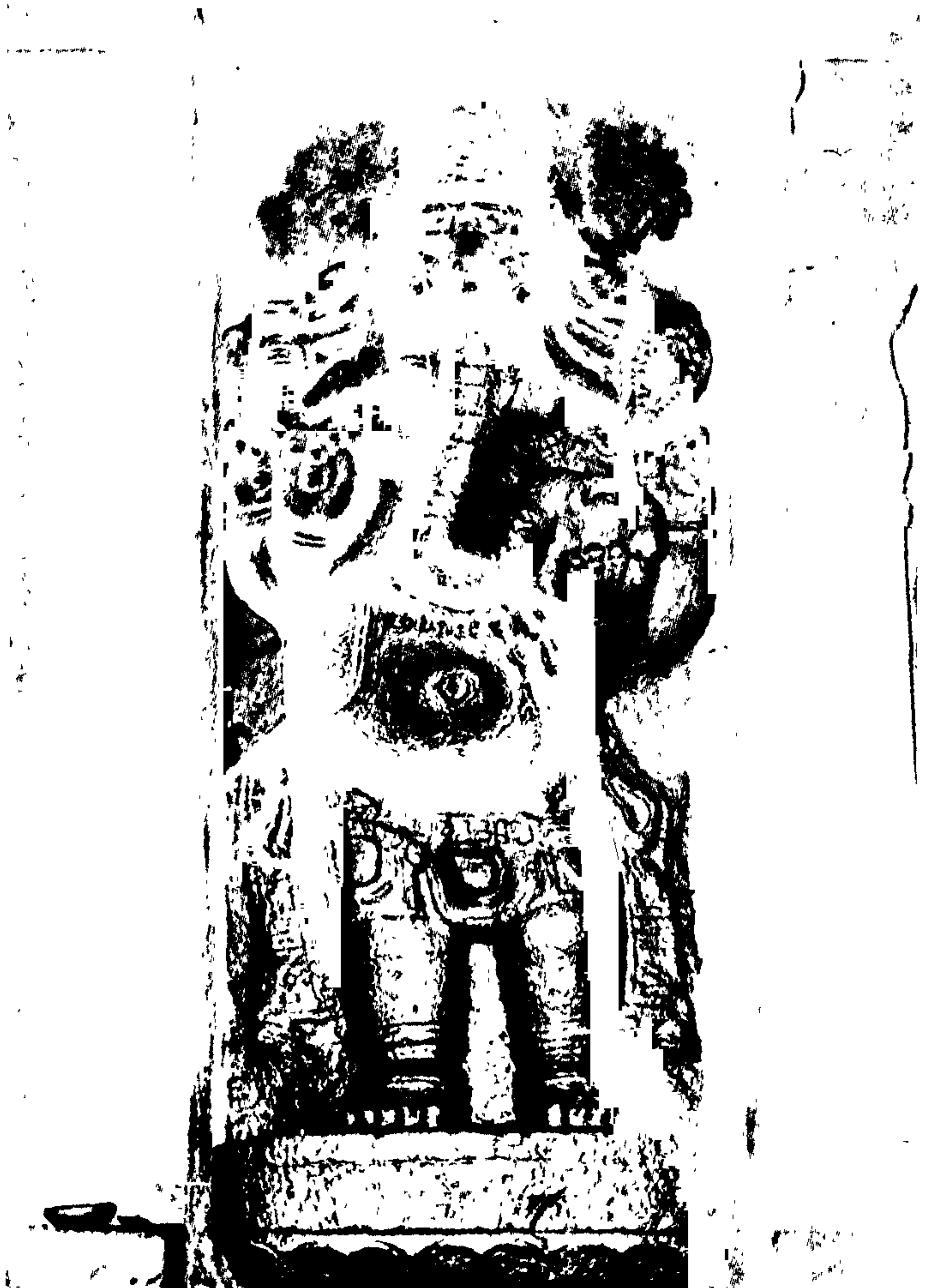
↓ b. Temple at Marhachanderi—General View.





Viṣṇu Temple—details of doorway—Marha Chanderi.

MASILAMANESHVARAR TEMPLE—TIRUMULLAVAYIL



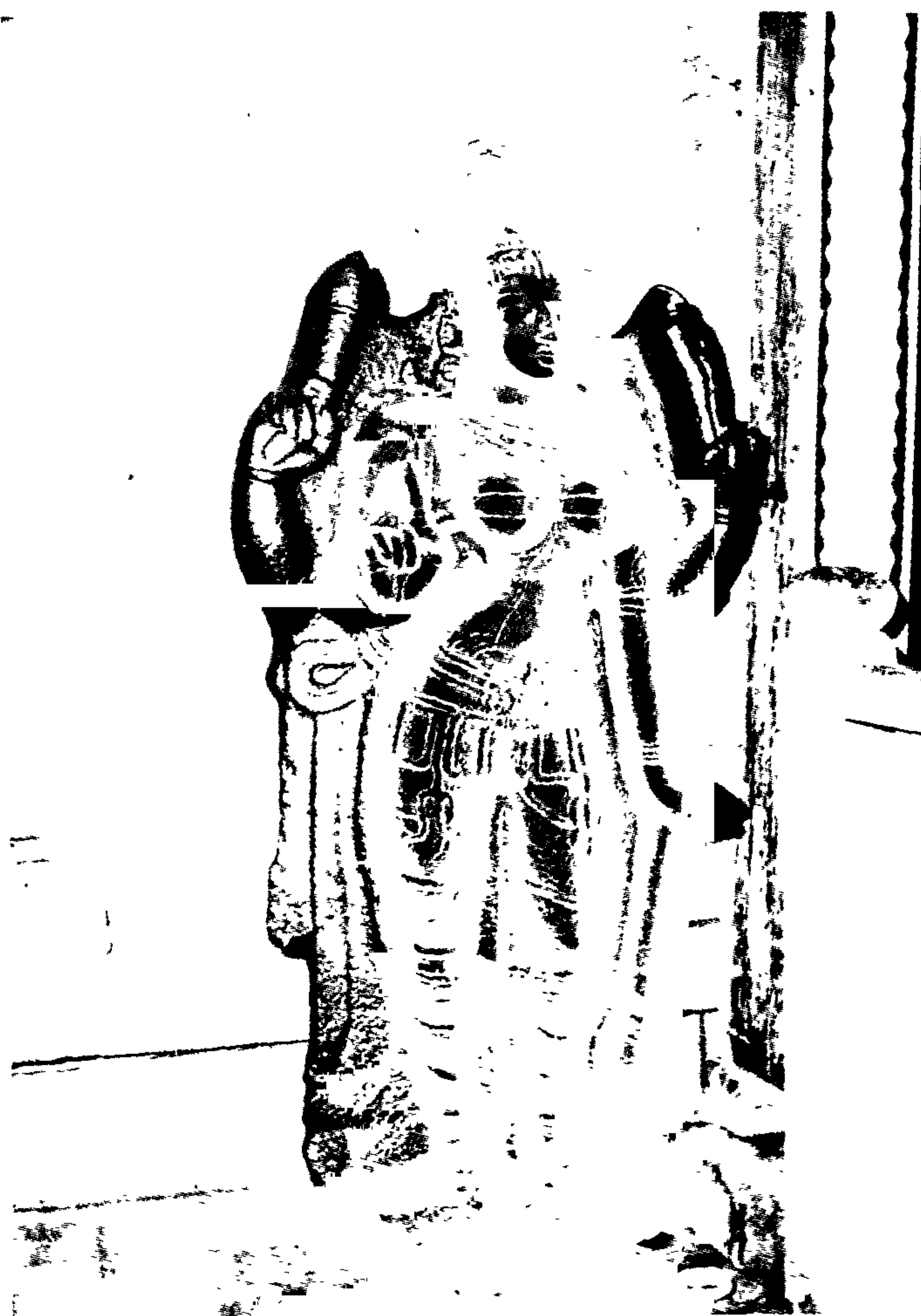
a. Geṇeśa.



b. Dakṣiṇāmūrti.



a. Śaiva Saints.



b. Dvārapālikā.

D. Sculpture and Art

XXXIII

Gajendramoksa

C. Sivaramamurti

Gajendramokṣa is one of the most important exploits of *Viṣṇu,* for which a crown as a token of laurels is held up over his head, in the famous panel at Deogarh, in a tradition of such representation, which occurs even in early Sātavāhana sculpture at Amarāvatī. It is not known how early has been this concept of *Gajendramokṣa.* It must certainly have been very early and it has had its own transformation during the ages.

The earliest occurrence of the elephant caught by an aquatic monster is in the *Kakkaṭa jātaka* of the Pāli *Jātaka* which is however styled in the label for the sculpture from Bhārhūt as *Nāga jātaka* (Pl. LXXV a). While the elephant is emphasised in the *Jātaka,* it is the monster crab that the sculptor has emphasised at Bhārhūt. The idea again is that the elephant was a very mighty and noble one, the Bodhisattva himself so born, and the acquatic monster an equally strong one and that it had some divine association which is indicated by the description given of it as a golden one. It may be of interest to recall the mighty Rāma was born in the mighty zodiacal sign of the crab. *Karkaṭa.* The elephant was so important that he had a number of mates accompanying him and he approached the lake in almost regal glory and stretched his trunk to quench his thirst, and alas ! he was caught by the monster golden crab. It was very difficult for the elephant to extricate his leg from the clutch as of the monster. Though he tried with all his might he could not succeed, and had to be helped by his mates, that readily came to his rescue. Even in the late story from the *Bhāgavata* we know that the mates of *Gajendra* came to his help, but it was of no avail, and finally *Viṣṇu* had to come to save that elephant. But in this early version the help offered by his mates, so enhanced the strength of the mighty elephant that he pulled out the crab, weakening its clutch by a ruse thought of by his consort, crushed it with his foot and joyously escaped from a grip of despair. It was the Bodhisattva that was born as an elephant and naturally he was also a noble one, as in the later stories where one of the greatest devotees of *Viṣṇu,* Indradyumna, the Pāṇḍyan king, was for his inadvertent disrespect towards *Agastya,* the pitcher-born sage, transformed as an elephant, but still with full memory of his past birth as a great royal devotee of *Viṣṇu,* a devotion that continued even in his animal form.

The story at Bhārhūt is of the 2nd century B.C., and as Rhys Davids has pointed out, the text of the *iātaka* should be very much earlier, and has certainly, had variations by the time the Bhārhūt sculptures were carved. Many other versions in the *jātakas* of several other episodes have been borrowed from the epics, particularly the *Mahābhārata.* This story should have existed in some very early text so very much earlier, and as we know Indradyumna is one of the greatest devotees of *Viṣṇu,* a *Bhāgavata.* When Heliodoros set up in about 200 B.C. the *dhvajastambha* for Viṣṇu at Vidiśā (Besnagar), he was himself a *Bhāgavata,* a fact he mentions with gusto in his inscription recording the erection of the *Garuḍa* standing, for *Saṅkarṣaṇa-Vāsudeva,* whose worship was indeed very popular at that time. The recently found coin of Agathocles of the second century B.C., with *Saṅkarṣaṇa* and *Vāsudeva* on either side, with their respective attributes, *hala* and *musala* for the former and *śaṅkha* and *chakra* for the latter, prove the popularity that is already there, well known, not only from the reference to their worship by Patañjali, but also in the early Sātavāhana inscription in the Nānāghaṭ cave of the second century B.C. and the inscription from

Hathībāḍā and Ghosuṇḍī in Rājasthān mentioning a stone enclosure to the temple of *Saṅkarṣaṇa-Vāsudeva* built by the devotee Sarvatāta also in the same century. Indradyumna has been mentioned in many of the *Purāṇas* including the *Kūrma, Matsya, Vāyu* and *Viṣṇu* giving his parentage, his realm as the Pāṇḍyan territory and as one privileged to remember *Viṣṇu* with devotion in every birth.

All these factors have been used in the *Bhāgavata* and the story of Indradyumna is elaborated here, how he was a great devotee of Viṣṇu, how he was engrossed in meditation when *Agastya* approached him, how, lost in meditation, he was unaware of his presence, which so enraged the sage, that taking it as an affront, he cursed him to be born an elephant, how he was born as a noble leader of a herd, how he lived in splendid style in a great forest in the neighbourhood of a huge lake, how one day tormented by thirst, he went into the lake to have his fill of water, how he was caught by a huge crocodile, how he fought with it, with all his might for a thousand years, initially helped considerably by his entire retinue, including his devoted consorts, how it was all of no avail, how fortunately ever remembering Viṣṇu, the Saviour, whose devotee he had been in his previous birth as the Pāṇḍyan king, he prayed to the Omnigenous Lord, from whom the universe emanates in whom it resides, into whom it finally dissolves and Who is the Eternal Saviour of every creature on earth, whose wail from whatever distance never fails to reach His ears. His long and piteous wail brought the Lord on the scene in a trice.

The most dramatic description of this occurs in the 15th century version of the *Bhāgavata* in Telugu by Banmera Potana, one of the greatest poets in that language, who specially mentions that Viṣṇu in His hurry to rush and save the elephant neither took notice of the enquiries of *Śrī*, His beloved spouse, with whom He was playing dice in *Vaikuṇṭha*, nor could He think even of equipping Himself with the conch, discus and other weapons nor mount even *Garuḍa* waiting for Him, nor even acknowledge the salutations of the celestials as they assembled to hail Him as He passed them by in furious speed exceeding that of the wind or even the mind. The Gracious One the Most Merciful sent His wheel to cut the monster, and lo ! in a trice, it was done; and the elephant was released. What a wonder then ! the aquatic monster turned into the celestial Hūhū, from which form he was transformed into a crocodile by the curse of sage *Debala*, while the elephant assumed divine form as a devotee of *Viṣṇu*. The words *grāha* and *nakra* synonyms of *makara* have been specifically used in the narration in the original *Bhāgavata* in Sanskrit several times and following it in the Telugu version as well. The term *grāha* clearly connotes a crocodile. Yet the version as we know in sculpture, is different in different periods.

This story is interesting in the narration of its versions, where the elephant is always an elephant, but the aquatic monster is in the earliest context a crab, but a monster and a golden one, suggesting *divya* or celestial lustrous glory, the curse being implied even here. The elephant, as the Bodhisattva, is again a great and saintly being, not unlike the saintly devotee of *Viṣṇu* in the later narration. In fact, it is significant that it is styled *nāga jātaka* in Bhārhūt instead of the word *Gaja* for the elephant. So here itself starts the confusion between *Nāga* (snake) and Nāga (elephant).

At Deogarh it is not the *makara* but a huge *nāga* snake, a *nāgarāja* in therianthropomorphic form, human upto the waist and below that of serpent coil deftly shown (Pl. LXXV b). The snake could also be the divine personality and the celestial Hūhū who would compose one half of the form the hoods and the coils forming the snake itself. But anyway there has been an emphasis here on *nāga-bala*, the well known strength of the *nāga* snake, as well as the *nāga-bala* of the *nāga* elephant, a theme that has been wonderfully elaborated by the Choḷa Emperor Rājarāja in the huge snake coiled round the club of the *dvārapāla* in the Rājarājeśvara temple disgorging or swallowing an elephant, one *nāga-bala* against another *nāga-bala*. Probably, it is this idea of *nāga* against *nāga-bala* that may have encouraged the sculptor to transform the crocodile into a *nāga*, also an aquatic monster, keeping in mind that it was an aquatic monster that pulled the monster on land, the elephant, into the water, while the other dragged out his mortal enemy from the water on to the land, a great fight indeed between the strength of the one and the strength of the other.

It is interesting to see how the sculptor's composition, *chakra* cuts the snake, and *Viṣṇu* from his *Garuḍa* observes with rare compassion the finale of his relief, while higher up is shown the appreciation of the celestials by the crown held over his head. This is one of the most magnificent sculptures, a huge panel, taking rank only with its compeers on either side in the Deogarh temple itself.

The story as it is narrated at Paṭṭadakal is even more interesting (Pl. LXXVI a, b and c). *Viṣṇu* on *Garuḍa* anxiously rushes to help the elephant in distress. The monster here is also aquatic but that has got transformed into a giant tortoise. We can again understand this as, according to mythology, the tortoise has also enormous strength. This idea has been taken from a story and adapted. It is the episode of an elephant and a tortoise engaged in a mortal fight in the waters of a huge lake, whence, *Kaśyapa* suggests to his son, *Garuḍa*, lord of the winged ones, the golden *Suparṇa*, to prey on the tortoise and the elephant, wicked brothers so transformed and in a feud in the lake, one trying to pull the other into the water and the other on to the land respectively. The idea being a famous one in epic literature, it is no wonder that the strength of the tortoise and the elephant has been taken into account, to substitute the *nāga* by the *kūrma*, the elephant remaining a constant-common factor as a *nāga*. We know also that *Gaṅgā* and *Yamunā* have the crocodile and the tortoise as their respective vehicles. It is only one possessing immense strength that could be the vehicle of the torrentially rapid river *Gaṅgā*, who prided in her strength by which she imagined how she could not only drown *Śiva* but reduce him to smitherines to leave poor *Nandī* to sniff in the under-world for a few pieces of bones of the great god *Mahādeva*, whom she could so destory by the power of her torrent. The *Gaṅgādhara* form proves it a vain boast. Yet her torrential power cannot be denied. The flow of even *Yamunā* is not any the less. And these vehicles have that immense strength that could support such powerful rivers personified. From another context we know that the Nāga supports the earth and the tortoise the *Mandāra* mountain and the crocodile (*makara*) one of *Viṣṇu's* four forms, *Pradyumna*.

It is this stress on the strength of the *kūrma* tortoise, of the *nāga* snake, of the *nāga* elephant and the *makara* crocodile cum *matsya* fish, that has all combined to show the power of the aquatic against that of the terrestrial, above both of which is the highest celestial glory, the glory of the Supreme Lord.

In Hoysala sculpture of the 12th century A.D. the *makara* occurs as the crocodile in the scene of *Gajendramokṣa*, the elephant caught by a regular crocodile (*grāha* or *makara*), and the lord comes to his rescue as sculptured in the panel here (Pl. LXXVII a). This is the one that is the faithful representation of what is given in the *Bhāgavata* text. The date of the *Bhāgavata* is a mute point, but still it is a wonder how even at Paṭṭaḍakal, the sculpture has the tortoise instead of the crocodile as the well known version of the *Bhāgavata* is nearly of the same data. It cannot be forgotten that the sculpture at Paṭṭadakal is of the eighth century A.D. and of the time of Vikramāditya. It is a wonder how this form was chosen. And it is not unlikely that it was probably chosen deliberately even at Deogarh itself.

It is amazing how a very early tradition continues even when the sculptor is aware of a different one of his day, and it is a pointer to the probability both at Paṭṭaḍakal and Deogarh. In one of the Rājasthānī paintings, a beautiful one reproduced by Coomaraswamy in his *Rajput Paintings*, the theme is dealt with by a Rājasthāni painter well aware of the crocodile which is normal in the *Gajendramokṣa* paintings both of the Rājasthāni and the Pahāri schools. He has here purposely painted the elephant caught by the *nāga* and not by the tortoise or the crocodile, which shows that the predilection of the artist sometimes predominates more than the tradition (Pl. LXXVII b). This is a very interesting painting indeed to show how traditions persist. The *nāga* tradition at Deogarh of the 5th century A.D. continues in the 18th century, the tradition never forgotten even at so remote a date. It is not very unlikely that the painter had never even heard of or seen this sculpture at Deogarh; but the persistence of the tradition had made him introduce it over again in the context in such a late painting.

The *makara* itself has had its own transformation from a crocodile, crocodile fish, tapir, hippopotamus, shark, horned fish and so many forms in which it has appeared, a transformation which has been so interesting, that there has been a long article 'Makara in Hindu Ornament' by H. Cousens specially on the transformation of the *makara* in art during the ages.

It is indeed a very interesting study to find *Gajendramokṣa* narrated during the ages in different forms in different parts of the country, all its great stress on the strength of the two as supreme, but the Lord's strength more than all, having in mind not a single idea, as from this story alone, but commingling, as the intellectuals generally do, and even transforming a well known theme, as the *Rāmāyaṇa* has been so differently narrated in *nāṭakas* and *kāvyas* by various poets, not necessarily always following Vālmīki, and introducing new and newer and more interesting episodes to ennoble the hero and heroine. It should be

the same way here both the sculptor and the patron, the learned kind, who very often was a poet, well-read connoisseur and superb in aesthetic appreciation. The sculptor himself was equally well-read, intelligent, creative in producing thought-provoking episodes, capable of suggestive interpretation by combining several allied ideas and concentrating in focussing attention on the most important factors. In this story itself he has illustrated the strength of the two monsters from two regions, water and earth, and the Highest Power beyond them. The Power that encompasses the universe, the Power that is there purely for showering compassion to relieve a suffering world from all its misery—*balam ārtabhayopaśāntaye* (*Raghuvaṁśa* 8, 31).

XXXIV

A Chaturmukha Linga from Amaravati and the spread of Lakulisa Pasupatism

I.K. SARMA

Practically very little is known about the nature of worship of *Śiva* in the early centuries of the Christian era in Āndhradēśa, nay in South India. The lure of discovery of an overwhelmingly rich sculptured *stūpas* and *chaityas* foreclosed the chances of the more inquisitive and no serious enquiry into the more inquisitive and no serious enquiry into the other religious vestiges was taken up. It is only in recent years that such problem-oriented pursuits were undertaken and Gudimallam excavations by me (1974), has opened new vistas in respect of early *Śaiva* remains in South India going back of to 2nd century B.C. In this paper, however, I shall confine to the study of certain finds of *Mukhaliṅgas* and trace the spread of *Pāśupata-* and *Lakulīśa* cult into the South.

A CHATURMUKHA LIṄGA FROM AMARĀVATĪ (PLS. LXXVIII a-b and LXXIX a-b)

A remarkable piece of evidence has come from the reknowned Buddhist site of Amarāvatī, district Guntur. It is a tiny sculpture of a *mukhaliṅga* class, in greenish palnad limestone, measuring 7 cms high and 6 cms maximum width. This was procured by R. Subrahmanyam from a private party at Amarāvatī in the year 1954-55 and reported to have been found from the ancient mound called '*Kōṭa dibba*' located south-east of the Amarēśvara temple. Several ruined Sātavāhana brick structures, limestone sculptures, lead coins, besides pottery wares, were reported from this very place. The palace of Vasireddy Venkatadri Naidu, the local Zamindar, is also located on this mound. This unique find, a stray piece, somehow reached the Andhra Pradesh State Government Museum, Hyderabad, and is now exhibited in the Central gallery of the Museum within a show case.[1] No further details of discovery or its associated structural set up could be gathered. Being out of a soft lime stone, the piece suffered damage. The underside is roughly dressed and indicates its fixing into a slot over a separate pedastal of stone or wood. The top portion too has flaked, leaving only a rough outline of its conical head. From the size of the *Liṅga*, it clearly suggests to be an object of personal worship – an *archa* or *Iṣṭa liṅga*. It is of a conventional *mānu ṣaliṅga* (man-made), type, the *Rudra* or *pūjabhāga* having human faces signifying various aspects of *Śiva*.

A mere look at the specimen is enough to recognise it as a *chaturmukha liṅga* and that it bears the stamp of Sātavāhana workmanship. The four faces vividly display the expressive and subtle features of the mature Amarāvatī art. In view of the unsatisfactory preservation of the piece, the nature of ornaments, certain attributes and head-dress, belie specific identifications. However, the *śilpa* texts come to our aid here substantially.

ESOTERISM OF THE MUKHALIṄGAS

The *Śaiva āgamās* consider *Sada Śiva* as the highest and the supreme being. The five faces represent *Tatpuruṣa*, *Aghōra*, *Vāmadēva*, *Sadyōjāta* and *Īśāna*, collectively known as *Pañchabrahma*[2] and regarded as the emanations from the *Niṣkala Śiva*. The Śaivites regard these heads as symbolising the

soul, material world, *buddhī*, *alaṁkāra* and the[3] mind. We find in the Nārāyaṇōpaniṣad of the Taittīriya āraṇyaka (3rd century B.C.), X, 43-47, the *Sadyōjāta mantrās*, purely a prayer addressed to the great Lord (*Paramēśvara*). It is only on the basis of Śāyanācharya's commentary that we learn that these five *mantrās* were addressed individually to the faces (*vaktras*) of *Śiva*. The date of Śāyana is as late as that of the 14th century but the iconography of the *Sadyōjātādi-mantrasvarūpas*, was clearly much earlier. The earliest authentic Sanskrit text which provides vivid facial description of the *Pañchamukhas* is the Viṣṇudharmōttara[4] Purāṇa dated to 6th century A.D. (*Śambhōr-vadana-pañchakaṁ*). The later works like *Aparājitaparipṛichcha*, mention the five aspects of *Śiva* in the list of eleven *rudras*. Kāraṇāgama refers to five faced *Śivaliṅga* by the epithet *Śarānanaṁ* (*Śara* means arrow and literally five faced) but does not specify the position of each face. Rūpamaṇḍana says that Īśāna (fifth face) is beyond the ken of even the *yōgis* (*Yōgināmapyagōcharaṁ*). Usually the *mukhaliṅgas* show one, three and four faces carved on the *pūjābhāga*[5]. The Pāśupatas have elevated these *Sadyōjāta mantrās* to the level of *Bījamantras* and the *Pāśupatasūtras*, popularly known as *Pañchārtha* are grouped into five sections by *Kauṇḍinya*[6], the commentator (*Bhāṣyakāra*). Though we do not find any explicit iconographic form attesting these invocations, there is no doubt that glimpses of the faces of *Mahādēva*, their orientation to cardinal directions and esoteric significance are fully reflected.

We shall now describe each of the face clockwise.

A. *The East Face* (Pl. LXXVIII a)

This face is that of *Tatpuruṣa* or *Mahādēva*, and represents air (*Vāyu*). He has open eyes, bulging cornea, round eye balls, smiling countenance, broad eye brows, long distended ear lobes, the right ear having a *ghaṭa* shaped *Kuṇḍala*, left ear with a cluster of pearls. The hair is arranged in a cupshaped inverted *jaṭāmukuṭa* flanked by lotus buds.

"*Tatpuruṣāya vidmahē mahādevāya dhīmahe tan=nō Rudraḥ Prachōdayāt*".

The attributes are Mahādēva and Rudra.

B. *The South Face* (Pl. LXXVIII b)

The face represents *Agni*, *i.e. aghōra* aspect with gaping open mouth (*Ugra*) eye-balls prominent with (*Viṣamanētra*) large eye-brows. The details of the long conical *jaṭāmakuṭa* are blurred and so also the ornamental features around the neck and ears. The face characterises fierceness while all others are benign and sobre. (*Sarvāṇi saumya rūpāṇi dakṣiṇaṁ vikaṭaṁ mukhaṁ*).

Aghōrebhyō=tha ghōre-bhyō ghōra-ghōra-tarebbhyaḥ.
Sarvataḥ Sarva Sarve-bhyō namaste astu Rudrarūpe bhyaḥ.

Ghōra and *Ghōratara* are the attributes defined as the forms of *Rudra*.

C. *The West Face* (Pl. LXXIX a)

This represents the *Sadyōjāta* or *Nandivaktra*. standing for earth. The thick lips, gently parted as in *mandahāsa* (See the perfect line of the teeth). The head-dress is not clear but the outline appears to indicate a high *Karaṇḍa makuṭa*. There should have been a crescent—(*bālendu Kṛta Śekhara*), only two eyes are seen and the eye-brows are broad and half closed lids (*ardhanimīlita nētra*).

Sadyō jātaṁ Prapadyāmi Sadyojātāya vai namaḥ.
bhave bhave n=ātibhave bhajasva māṁ bhavōdbhavāya namaḥ.

In this Sadyōjāta aspect, the specific attribute Bhavōdhbhava is of great significance.

D. *The North Face* (Pl. LXXIX b)

This represents vāmadēva standing for water and immediate left of the Mahādēva aspect (A). This is the most attractive face, serene and beautiful of all, a women's delight. The prominent *Kapardī jaṭās* and slightly down-cast eyes makes him *Umāvaktra* and a *dvilōchana*.

Vāmadevāya namō Jyeṣṭhāya namaḥ Śreṣṭhāya namō rudrāya namaḥ kālāya
namaḥ Kālavikaraṇāya namō balavikaraṇāya namō balaprama thanāya
namaḥ Sarvabhūtadamanāya namō manōnmanāya namaḥ

There are altogether nine attributes—*Jyēṣṭha, Śrēṣṭha, Rudra, Kāla Kālavikaraṇa, Balavikaraṇa, Balapramathaṇa, Sarvabhūtadamana, Manōnmana.*

E. *The Fifth Face*

The top one called *Īśana* or *Sadāśiva* is formless and directed to the sky. This is damaged, being of soft lime stone and since it was under worship, the regular trickling of the *abhiṣeka* water had caused sufficient inroads creating a cavity on the top as well as cracklings between the faces, eroding several of the features.

Īśānaḥ Sarvavidyānāṁ=Īśvaraḥ Sarvabhūtānāṁ brahmādhipati=brahmaṇōdhipati=Brahmā Śivō me astu Sadāśivōṁ

Īśana is invoked here as *Sarvavidyānāṁ=Īśvaraḥ* (Supreme lord of all learning), *Sarvabhūtānāṁ=Īśvaraḥ* (Lord of all animate things). He is the Lord of the *vēdas* and Brahman as great God, *Sadāśiva.*

Between the *tatpuruṣa* (A) and the *Vāmadeva* (D), the facial expressions do not differ. There is no third eye on any of these faces, although the texts specify three eyes to all the faces, except *vāmadeva*; *Trilōchanaṁ Sarvāṇi, Vāmadevaṁ dvilochanaṁ.* Since the lower region suffered damage, we cannot be certain of the ornaments over the busts of these four faces. *Śāstras* speak of the figure upto *Stanasūtra* (bust) and the portion below should be of *liṅgākāra.* In all such early representations only the *mukhas* are extant, but in later times the full bust including the hands were found depicted as per the *āgamas.*[7]

ANTIQUITY OF ŚAIVISM AT AMARĀVATĪ

The occurence of this outstanding, though solitary specimen, raises several interesting questions and pushes back the antiquity and nature of Śaivism in this part of the country. It is needless to repeat that the twin villages of Amarāvatī-Dharaṇikōṭa were not only prominent Buddhist centres, but together served as a capital seat during the later Sātavāhanas period, from the time of Vāśiṣṭhīputra Puḷumāvi (A.D. 88-116). The prolific Buddhist vestiges and sculptures formed a class by themselves. Till now no excavated evidence of a Brāhmaṇical temple or sculpture or any other vestige assignable to the early centuries of the christian era has come to be known from this place. Thus the *Mukhaliṅga* described above, has earned the distinction of being the lone example during 1st-2nd centuries A.D. at this site and in South-East India as well.

There has never been an attempt to ascertain the antiquity of the Amareśvara temple, the most sacred *tīrthakṣetra* included among the *Pañchārānās*[8] and said to be founded by Indra. This is believed to be of chālukyan origin, like the other *ārāma-Kṣetras*, of the Godāvarī region. The founder was the great Chālukya Bhīma-I (A.D. 892-921). The most remarkable aspect of these temples, as also the Bhimeśvara at Chebrolu, is the tall *liṅga* set-up (nearly of six metres high) in a double-storeyed sanctum. The lower ground reveals a massive brick built pedestal and upper storey was provided with a *piṇḍika* which serves as a receptacle for the *abhiṣeka* water and *pūjā* was normally performed in the upper storey *i.e.*, the *Rudrabhāga* of this unusually tall *liṅga.* The ground *tala* has its own *Sāndhāra* circuit, as on the upper *bhūmī* which may be regarded as a *Sarvatōbhadra*, as the four openings are set to the cardinal directions. There is no possibility to study the nature of the basal *pīṭha* and eventually its foundational details, because of the total blocking of the ground floor entrance in late mediveal times. However, a close observation of the *liṅga* top over the upper *tala* of the sanctum reveals that it has a square mortise-hole characteristic of a free-standing *ayaka* pillar of limestone which contained the Buddhist symbol as a crowning member. Such pillars[9] were appropriated as *liṅgas*, by the Śaivists after their advent at the site. The *Brahmasūtra* lines were drawn over the top region and the fluted shaft terminal was made somewhat semi-circular leaving the mortise-holes as it is and now concealed by a metal cover shaped as a hooded Nāga.

As already stated, the *Mukhaliṅga* bears unmistakable Sātavāhana traits. There is nothing to suggest that the Sātavāhana rulers took any active or direct role in the Buddhist establishments here, for none among the rulers, whether of pre-Christian period or later, proclaimed as converts to Buddhism.

On the other hand, their personal religion was undoubtedly Brāhmaṇical Hinduism, while the early rulers were devout worshippers of *Vrisṇivīras*, the later kings worshipped *Śiva*. This holds true perhaps with regard to some of their subjects also. During the early centuries of the Christian era Mahāyāna Buddhism at Amarāvatī[10] witnessed unprecedented growth and enjoyed popularity, but nevertheless, from this unique *liṅga*, we witness the prevalence of at least personal worship of *Śiva*, more specifically, the *Sadāśiva*. This clear document therefore stands as a remarkable aid for piecing together certain stray evidences suggesting the nature and role of Śaivism during the early centuries of the christian era.

SOME EARLY LIṄGA—TYPES

We may now consider some early and later parallels before discussing the esoterism concerning the *Mukhaliṅgas*.

A. *Bhita Liṅga* (Pl. LXXX a, b and c)

This is regarded as the earliest specimen of a *Mukhaliṅga* (1.321) obtained from Bhita[11], near Allahabad and dated to first century B.C. Here apart from the four faces, the fifth, *i.e.*, top face is generally taken for granted as an aspect of *Īśāna*. But the top figure was shown here in a robust human form. J.N. Banerjea[12] takes it as a memorial column, inspite of the fact that the inscription clearly states it to be a *liṅga*[13]. Sivarama Murthy, on the other hand, finds in this form, the earliest *Sadāśiva* with the *Ūrdhva liṅga* incised at the lower region suggesting the *Ūrdhvaretas*, the great *yōgi* that He is[14]. But to me, this incised phallus mark appears to be a later imposition over the *Sadāśivatattva* and should be deemed to mark the influence of a different cult related to the phallus concept (of the Harappan *yōgi* seals), unlike the Gudimallam *puruṣa liṅga* where it was clearly manifest in the very carving. Like the Amarāvatī *Iṣṭa Liṅga*, the *Bhita Liṅga* according to its record stands as a *priyatama devatā*, the loveliest God or say a pet God for the devotee or donor. The most vital divergence, is however manifest in other respects. The Amarāvatī *Liṅga* is a miniature *Chala liṅga* class, whereas the Bhita specimen is of an *achala* or *Sthāṇu* type and the lower part, the roughly dressed and tenon-shaped *Brahmabhāga* was fitted to the *pīṭha* mortise.

Another remarkable and interesting aspect lies in the human form, the *Īśana* top. This aspect has not been properly assessed so far, by the earlier writers, and we shall try to highlight only such unnoticed features here. The illustration published by R.D. Banerjee is of prime importance to us. The top face though mutilated has certain distinct characteristics like the distended ear-lobes, with circular pendents, the broad chin and the *Jaṭās*. These *Jaṭās* are well combed falling on the back in long strips (like the *tāla* leaves), as the rear side of the *liṅga* shows (P16). The front reveals the torso, its nabel part as well as a thin—double stringed *yajñōpavīta* across the torso. The two hands are clearly visible, the right one has a wristlet and in *abhaya* touching the South-East corner head, whereas the left palm rests over the *Śikhā* of the North-East face and holds an object in the palm. The two rear *mukhas*, like the front ones over the thighs, are alike facing the corners. The four *mukhas*, and their placement evokes certain fresh identifications. They differ from the general *Mukhaliṅga* class where the *Īśāna* aspect is formless and the faces are set in cardinal directions. Here the *Īśāna* is shown frontally as if the *Sadāśiva* sprang up from the *Liṅga* torso, whereas, the corner oriented faces suggest that the frontal two heads below the navel region emerged out of the thighs and correspondingly the other two from the hips. These appear to emphasize the attribute of *Śiva* as *Diśāṁ Cha pataye*[15], Lord of all the *Diks* and *dikpālas*. The expressions on the faces are identical, though the head-dress differs on each of them. So it seems that the four faces cannot be identified strictly as of the *Mukhaliṅga*. Then how do we explain this peculiar *liṅga* ? What was the esoterism behind such a depiction ?

The epic literature seems to offer some clue. In Mahābhārata we have a curious, rather vulgur, explanation to the origin of the faces of *Śiva-Sathāṇu*.[16] Śiva, it is said, aquired several (four), faces to behold the bewitchingly beautiful form of *Tilōtama* while this *apsarasa* was circumambulating the *Sthāṇu* the fixed *liṅga* of *Śiva*. Thus eroticism was imposed on a purely ascetic, *Śiva*, the very symbol of chastity,

He being an *Ūrdhvarētaḥ*. Even if we accept that the epic narrative is picturised here in this *liṅga*, the incised *Ūrdhvarētas* clearly highlights certain elements of constrasting nature.

This epic story seems to have gained popularity and found its iconographic counterparts in the Gupta-Vākāṭaka period.

B. *Mandhal Śiva*

A rare sculpture in round assignable to the Vākāṭaka period (5th century A.D.), was recently reported by A.M. Shastry[17] from Mandhal, district Nagpur. A M. Shastry sees in this a unique representation of *Mahā Sadāśiva* form with the *dvādaśa Śīrṣaka* (12-headed), but a closer observation would show that this was a *liṅga* whose bottom portion is missing *i.e., the Brahmabhāga*, whereas the *Viṣṇubhāga* had the representation of a two-handed figure of *Śiva-Sthāṇu*. The top most four heads face the four corner directions while the *Īśāna* retains the usual formless conical *liṅga* top. The next (lower) four heads are set to the cardinal directions, like on the *Mukhaliṅgas*. The frontal head integrates with the main face of a robust physique of a two-handed *Śiva*. All the faces adorn Jaṭābhāras, and reveal *Śāntabhāva*, like that of a *tatpuruṣa*. From the shoulders of both the hands, two faces emrge, with clean heads (*Vyuptakeśi*), while from the thighs below the *Jaṅghā* , corresponding to the position of the hips on the rear, two faces appear which possessed *Uṣṇīṣa*. All these faces have wide-eyes and smiling counternences. The absence of the third eye is rather significant. As on Bhita, the main figure has an *Yagñopavīta* across the shoulder. We cannot be certain on the number of faces and also the attributes in the hands of the central figure. The identification of this unique sculpture as *Mahāsadāśiva*, though appears to be sound at the first sight, we would like to classify it along with the Bhita example and align it to the epic story narrated above.

SOME MUKHALIṄGA TYPES

We shall now consider a few select *mukhaliṅgas* clearly identifiable as such, and bring forth certain new aspects related to them.

A. *Pañchamukhaliṅga, Viriñchipuram* (Pls. LXXXI a-b and LXXXII a)

During my architectural Survey recently a unique five-faced *Liṅga* was found in the Mārgasahayeś-vara temple at Viriñchipuram, district North Arcot, Tamilnadu[18]. The main temple, an apsidal one, is a massive stone structural edifice built under the patronage of the early Chōla monarchs. The present *liṅga*, however, is a stray find kept on the western wing abutting the inner face of the *prākāra dalans*. This is a low squatish cylindrical *liṅga* set into circular *piṇḍika* (*Vēsarapītha*).

The *rudrabhāga* has been clearly shaped into five (*mukhas*) faces, the fifth *i.e.*, the *Īśana* depicted in the human form. All the four faces poised towards cardinal directions. The faces are only upto the neck, like in the early examples (*Kuṣāṇa*). The *Īśāna* head has long over-flowing *Jaṭās* touching the east face, *i.e.*, the *Tatpuruṣa*. Each face has different head-dress and prominent distended circular ear lobes (*Chakrakuṇḍalas*). The third eye is distinct except in case of *vāmadeva* (North face).

Both the *liṅga* and *pītha* were out of the same black trap, the linear face and sharp nose, narrower chin, clearly betrays Chola workmanship and datable to late 11th and 12th century A.D. If we set aside the Bhita multi-faced sculpture, the only known speciment of a clear *pañcha-mukha liṅga* type would be that of Viriñchipuram.

B. *Mukhaliṅga of the Kuṣāṇa-Kṣatrapa and Gupta Periods*

We shall cite a few typical examples assignable to these periods and get hold of the concept in its broader perspective.

Kuṣānaliṅga in National Museum

This bears no. 65.172 and resembles a post and is of 72 cms in height. It has four heads, facing the cardinal directions.[19] A flower garland is found entwined above the *Viṣṇubhāga*, distinguishing the form-

Lakulīśa and His Forms in the South

Here it is necessary to state briefly the early history and spread of the *Pāśupata* sect in order to locate its impact on the existing sects, identify and interpret certain sculptures noticed by me during a field survey.

Lakulīśa and Pāśupatism

R.G. Bhandarkar equated *Śivabhāgavatās* of Patañjali with Pāśupatas and Lakulīśa was regarded as the founder of the *Pāśupata* sect. But J.N. Banerjea had clearly shown that *Lakulīśa* can "On no account be taken earlier then the first quarter of the second century A.D.", in the light of D.R. Bhandarkar's study of the Mathura pillar inscription of Chandragupta-II (A.D. 380). There was also no direct association between the *Śivabhāgavatās* of Patañjali on one hand and *Pāśupatas* on the other. This appears to be quite sound and reasonable. Further the explict evidences provided by the Bhita *Liṅga*, the Gudimallam *liṅga* and now the Amarāvatī specimen, would doubtless point to an early wave of Pāśupata Śaivism travelling though central India to the Dakṣiṇāpatha. This early wave cannot be much later than 2nd Century B.C., and therefore certainly *Lakulīśa* cannot be regarded as the founder of Pāśupatism. But this view in no way denies the influence of *Lakulīśa* or *Lakulīśa's* connection with the early *Pāśupata* sect, as he was a potential exponent, a reformer, and proselitizer.

In the early centuries of the Christian era Pāśupata Śaivism was strong in Western and Northern India. The coins of Wima Kadphises (A.D. 50-77), the celebrated Kuṣāṇa ruler, reveal the popularity of the *Maheśvara* worship, besides the *Mukhaliṅgas* arrayed above *Lakulīśa*, the great reformer of Pāśupata order, hailed from the country of *Lāṭa*, that too from a place called Kāyāvarōhaṇa which was immensely important, for it is said, that *Śaṁkara* himself resided here (*Śrīmat Kāravaṇe tīrthe mūrtimān Saṁkaraḥ Svayaṁ*).[33] Recent excavation at this site of Karvan yielded evidences of several brick temples dedicated to *Śiva*. The main shrines, mostly rectangular and square had *Svayambhū liṅgās* fitted to circular *pīṭhas* having long chute facing to north and connected to brick *Praṇālās*, sometimes, below the ground level. The earliest phase of activity at these complexes, could not go beyond 3rd century A.D., the most flourishing period, however, fell between 5th to 7th century A.D.[34] So the archaeological evidences also indirectly point to the fact that *Lakulīśa*, the *Pāśupata* teacher, whose link with Karvan was undisputed, could only be dated to 2nd century A.D. at the earliest.

The Lakulīśa Pāśupatism was orthodox in character and emphasised the *yoga* and *Bhakti*. This sect seems to have spread to the South during the period which heralded the "Kṣatrapa-Sātavāhana" cultural integration. The Amarāvatī *Liṅga* detailed above certainly belongs to this period, and the Western *Khṣātrapas* were closely influencing the Sātavāhanas and their immediate successors, both politically and culturally. We clearly see effective revival of Brāhmaṇical Hinduism, Vedic ritual and Sanskrit learning, inspite of the fact that Buddhism and prākṛt language entrenched deeply in Āndhra and Karṇāṭaka. The later Sātavāhana rulers named themselves as *Śivaskanda Sātakarṇi*, *Śiva Śri Puḷumāvi*, *Rudra*, *Viṣṇu-Rudra-Śivalānanda Sātakarṇi*, *Rudra-Puruṣadatta* and the like. This becomes more pronounced during the next two centuries in Āndhra and Karṇāṭaka. Not only several remarkable Brāhmaṇical temples sprang up but Sanskrit and *Śiva* worship becomes exclusively regal.

There appears to be not only an extensive but intensive revival of the worship of *Śiva*, in particular *Maheśvara*, and this was mainly due to *Lakulīśa* and his great disciples. We have no explicit continuous archaeological data, to track the finer details of this spread chronologically regionwise, but to say that Lakulīśa-Pāśupatism did not "exert any influence in Tamilnadu proper and such figures are absent" would be going far from truth"[35]. J.N. Banerjea has also expressed similar views[36] sometime ago. "*Lakulīśa* images are very seldom found in South India but they are frequent in Orissa in the east, Gujarat and Kathiawar in the west". But my explorations have revealed quite a few important and fine examples. Further exploration and study in this regard would prove still rewarding.

A Rare Lakulīśa form from Mukhaliṅga (Pls. LXXXIII a-b and LXXXIV a-b)

In the sculpture collections at *Mukhaliṅgam* a sandstone squattish sculptured pillar measuring about 1½ metre high and 50 cms width on each side, was found. It has a rounded top and bears sculptured faces on the broader sides. The frontal face, perhaps also the main one is oriented east and represents a complete figure of a youth, two handed, seated in a cross-legged *yogī* posture with a short club or *Lakuṭa*[37] in the left hand and held closer to the chest, and the rosary in the right hand which is upheld. The prominent *yogapaṭṭa* fastening the back and the two upraised knees clearly suggest, the yogic *āsana* of a *Sopāśraya*[38] variety in which the aid of *yogapaṭṭa* was necessary.

On the other three faces only the head portion is carved and all the faces are alike with the same heavy *uṣṇīṣa* or a low cap-like head dress, long distended ears ending with conical pendents. The squarish face with broad cheeks, the broad-nose, pout of lower lip, wide eye-brows, prominent cornea reflect meditation in-depth. No third-eye is present on any of these faces, and the main figure has a thin double line *Yajñopavīta* and a similar *udarabandha*.

The nudity is evident here but the *membrum virile* is not shown, perhaps the posture of the figure rendered it difficult to depict. We identify this unique figure as that of *Lakulīśa* the great Śaiva teacher, shown back to back over a *Pāśupata liṅga*, which is unfortunately unfinished. From the simplicity and archaic nature of the representation, we are prone to date the figure tentatively to 3rd-4th century A.D. Soundara Rajan says that in the northern examples from Gujarat and Rajasthan, *Lakulīśa* is shown seated back with a *liṅga*. The same scholar asserts that the *Mahāyogī* or *yogeśvara* tradition established at Eklinji in Rajasthan laid the foundation for the iconography of *Dakṣiṇamūrti*. In fact *Yogadakṣiṇāmurtī* image (four-handed) in similar posture with *yogapaṭṭa* tied and in typical Chola style can be seen among the loose sculptures at Valikaṇḍeśvara temple, Valikaṇḍapuram, district Tiruchirapalli.

A *Lakulīśa* figure[39], two-handed with *yogapaṭṭa*, and in *vyākhyāna* with the *lakuṭa* resting on the left shoulder, can be found in the Mathura Museum collections, assigned to Gupta period. This is a relief figure, set in a circular medallion with beaded border. Here the *Lakuli* is flanked by two disciples (not the usual four), standing in *namaskāra mudrā*. At this stage it will be appropriate to note another important form of *Lakulīśa*.

This is seen on the famous Mathura pillar[40] inscription of Chandragupta-II, dated year 61 (A.D. 381), which records the installation of the two *Śiva liṅgās* and refers to *Maheśvaras* or *pāśupata āchārya*. This pillar (1.270 metres high), has a squarish top and bottom and octogonal midregion. The extant-top face has the *Triśūla* banner, the bottom squarish face has a standing two-armed ithyphallic figure, the right hand holding a *lakuṭa* with a long *daṇḍa*, while the left has a *vajra* a lightening staff. The inscription occupies the mid-region. The figure is aptly described in the last line of the record as *Bhagavān Daṇḍaḥ* and *Rudradaṇḍaḥ* and *Agranāyakaḥ*. Significantly indeed the first is the aspect of *Lakulīśa* or *Lakuṭapāṇi*, the other is the *vajrabāhō i.e.*, the Vedic *Rudra* with the thunderbolt.

OTHER SCULPTURES OF LAKULĪŚA IN THE SOUTH

Apart from the above early and infrequent representation of *Lakulīśā* discussed above, we find in the medieval temples beginning from 7-8th century A.D., *Lakulīśa* figures in the niches or as part of the sculptured motifs adorning the door frames or prominent parts of the external *Kaṭi* of the temple. But no where independent shrines could be seen for this teacher. We shall illustrate a few recently noticed sculptures of *Lakulīśa* from South India.

Lakulīśa from Siddhavatam : District Cuddapah (Pl. LXXXV a)

We have noted above from Jyoti, district Cuddapah a Chaturmukhaliṅga. A fine specimen of seated *Lakulīśa* sculpture was found from Siddhavatam, which is now displayed among the sculpture-collections at the Vaidynāthasvāmī temple at Puṣpagiri, district Cuddapah. The fouthful *Lakulīśa* seated cross-legged four handed, with a *Lakuṭa* or short club in the hand (resting against the shoulder), the right having a *mātulunga* fruit, the upper left a book. the corresponding right holds rosary. He is ithaphallic has an *Yajnōpavīta* and *udarabandha*. The long distended ears possess *Patrakuṇḍalas*. The picked up eye-brows,

round face and rich *Kapardī* hairlocks arranged in ringlets, render the figure most attractive. This can be dated to 8th-9th century A.D., and assigned to the Renāṭi or Telugu Cholas who ruled this area.

A Seated Lakulīśa from Perur, near Coimbatore and others from Tamil Nadu (Pl. LXXXV b).

Towards north of the village Perur and within a coconut grove is a modern temple going with the name "Koḍalūru Mariamman". Some stray but early sculptures are seen under the tree in the open field here. Among them a most significant image of sandstone is that of a seated, two handed *Lakulīśa* under a tamarind tree. He is crosslegged ithaphallic and seated over the *Kuśa* grass. The right hand holds perhaps a vessel, and in the left the *lakuṭa* with long stick and club part rests against the shoulder. The head dress, a *Jaṭābhāra* type, bipartite and extended over the ears. The *vastra yajñōpavīta*, the *Kaṇṭhābharaṇa*, the long ear-lobes distended and touching the shoulders are very characteristic. The long ovalish features of the image and its style exhibits Western-Gaṅgā workmanship. It is held by a group of scholars, that this Perur in the Kongu country was the place of origin of the Western-Gaṅgās, and the Kudaluru village was gifted by Mādhava Varman-I[41]. Other sculptures of similar style apart, the area had yielded early historical black-and-red, white-painted Russet-coated ware etc. Almost coeval with this figure, are the examples of two handed *Lakulīśas* from Arittapatti cave (near Madurai), Dharmarājaratha. (Mahābalīpuram) and Devaramalai (Pudukkoṭṭai), all falling between 7th-8th century A.D.[42]

It may be seen that in none of these later representations of *Lakulīśa* from the south, we find his disciples depicted. Further there is no doubt in the fact that the Pāśupata-Lakulīśa sect effectively influenced Tamilnadu right from, say 7th century A.D. as at Dharmarājaratha and continued to exist till the next two centuries.

The early Pāśupatism (*Vaidika*) with its *Śivatattva* and the *Mukhaliṅga* worship reached further south from Gudimallam and Amarāvatī. The Karṇāṭaka tract also had similar impact, like the Āndhra area, during the late Sātavāhana period. In the Chālukyan temples top, we get the *Lakulīśa* images very infrequently but all these have no such heterodox or *avaidika* emphasis as in the Eastern Indian Śāktaic belt (Assam-Bengal-Orissa). This later eastern Śāktism[43] did influence *Mukhaliṅgam*[44], the seat of the Eastern Gaṅgās of the Kaliṅga zone and not in other parts of Āndhra and farther south.

We have got to acknowledge the great contribution of the *Pāśupatas* as well as its greatest expounder and proselytizer *Lakulīśa*. The south had evolved out of this great *Śivatattva* several remarkable *Liṅgakṣetras* and human representations of the great God, like *Dakṣiṇāmūrtī, Liṅgodbhava, Liṅga-Liṅgin,* and a lot of cult oriented idolisations of *Śiva-Mahādēva* during the Pallava, Pandya and Chola periods.

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7. Gopinatha Rao, T.A., *Elements of Hindu Iconography*, Madras, 1916, Vol. II, Pt. II, p. 25.
8. The other four are Bhīmarāma (Samalkot-Bhimavaram); Drākṣarāma, both in East Godavari District; Kṣīrarāma (Palakollu, West Godavari), and Bhīmeśvara temple Chebrolu (Guntur district). All these possess tall lime stone *liṅgas* (of the *āyaka* type pillars), in their double storeyed sanctums. Invariably they are located on ancient historical mounds associated with Buddhist relics. Rama Rao, M., *Eastern Chalukyan Temples of Andhra Desa*, Hyderabad, 1964. K.V. Soundara Rajan takes the Chebrolu temple as the earliest. See *Indian Temple Styles*, New Delhi, 1972, pp. 132-133.

9. It is interesting to note that the sacred status to the Banares (Rajghat), was, to begin with, due to Buddha, who first preached his religion here. Nirad C. Chaudhuri says that Hindus may have appropriated this sacred status from Buddhists. See Chaudhuri, N.C., *Hinduism*, New Delhi, 1979, p. 162.
10. Even amidst powerful Śaivism at this place, the lofty and the most beautiful Mahāchaitya retained its grandeur and inscriptional evidences and travellers' accounts testify to the existence of both the religious edifices together. The Buddhist stupa remained as a "*Chaītyaṁ atyunnataṁ yatra nānā chitra suchitritaṁ*" and where *Śaṁbhu* named Amareśvara presided, Mitra, D., *Buddhist monuments*, Calcutta, 1971, pp. 200-201.
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13. *Khajahuti Putānāṁ Liṅqo Patithapito Vāseṭhipuṭena Nāgasirinā piyata(ṁ) devatā.* See Gopinatha Rao, T.A., *op.cit.*, Vol. II, Pt. I, Pl. I. The characters clearly seem to be later to Śuṅga period and hence cannot be assigned to 2nd century B.C., as B.N. Sharma put it. Also the *Liṅga* may not be exactly a *Pañchamukha type*. See Sharma, B.N., *Iconography of Sadāśiva*, New Delhi, 1976, Fig. 1.
14. Sivaramamurti, C., *Satarudriya*, New Delhi, 1978, Fig. 41, pp. 35 and 43.
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17. Shastri, A.M., "Mandhal Utkhanan" *Vidarbha Samshodhana Mandal, Varshik*, 1977, Nagpur, 1978, p. 146, Pl. 3.
18. This name reminds the Vedic attribute of *Śiva Padhīnāṁ Pataye*, Lord of all Paths and guide to wanderers, *Satarudriya*, p. 46.
19. Sivaramamurti, C., *Satarudriya*, Fig. 43, Also Sharma, B.N., *Iconography of Sadāśiva*, New Delhi, 1976, pp. 2-3, Pl. II.
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22. Agrawala, P.K., *Gupta Temple Architecture*, Varanasi, 1968, p. 6, Pl. IIa; Joshi, N.P., *Mathura Sculpture, Archaeological Museum*, Mathura, 1966, p. 80, no. 10-Acc. No. 52, 3625.
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24. Chattopadhyaya, S., *Early Theistic Sects of Ancient India*, Calcutta, 1962, pp. 124-126.
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26. Percy Brown dates the beginning of the temple to 7th century, A.D. and sees some northern influence of the later Gupta period, Cf. *Indian Architecture*, I, Bombay, 1956, p. 123. However, the site of this temple yielded Sātavāhana coins, early historical pottery, etc. and the religious activity must be linked to the Sātavāhanas at its earliest phase, *IAR*, 1957-58, p. 64: 1961-62, p. 3.
27. Sarma, M.R., *Temples of Telingana*, Hyderabad, 1972, Fig. 69, p. 245.
28. Gopinatha Rao, T.A., *Elements of Hindu Iconography*, Madras, 1916, II, p. 68, Pl. XI.
29. This is a *Chaturmukha Tryambaka* inside a cave, south of the main temple and on the slope of the Kannappa Hill; Cf. Ramesan, N., *Temples and Legends of Andhra Pradesh*, Bombay, 1969, p. 72.
30. A *Mukhaliṅga* was reported from the precincts of Svarga-Brāhma Temple. This is different from the well known *Liṅgodbhavamūrti* (an *Agni-Liṅga*) in a prominent niche of this temple. The top has usual conical finish, but the lower shaft is octagonal as in Ekamukhaliṅgas of Khoh and Sankargadh. But a closer examination would reveal here that the frontal side has a full figure, two handed with *Siraśchakra* carved upto the knees, the region below was not attempted and left rough. See Ramachandra Rao, P.R., *Alampur*, Hyderabad, 1977, Fig. 31.
31. Narayana Rao, C. (ed), *Panditārādhyacharitramu* (Telugu), Madras, 1929, p. 283.
32. Ramesan, N., *Op.cit.*, pp. 74-78. At Chidambaram, by the shrine of Naṭarāja, to his left is the *Rahasyam* and below is an *Ekamukha liṅga*. In fact the *Chit Sabha* signifies the worship of *Śiva* in his Akasic form. The *Mukhaliṅga* here might represent the *Iśāna* or *Tatpurusha* form.
33. Priyabala Shah (ed.), *Kāravaṇa Mahātmyaṁ*, Gujarat Oriental series, no. XV, pp. IV, PP. 37-57.
34. I am thankful to Dr. C. Margabandhu, Superintending Archaeologist, New Delhi for this information.
35. Nagaswamy, R., "The Original and Development of Śaivism" in *Śaṅkara and Saṇmātā Souvenir*, Madras, 1969.
36. Banerjea, J.N., *op. cit.*, Delhi, 1974, p. 465.
37. It could be a *mātuluṅga* fruit or even a *liṅga*. We cannot be certain since the object is broken.
38. *Vyasabhāṣya* refers to as many as 13-varieties of *yogic āsanas*. Banerjea, J.N., *op. cit.*, Delhi, 1974, p. 271. Yogapaṭṭa is usually seen in the Kevala-Narasiṁha images at Halebid and in *Lakulīśa* representations elsewhere. See Gopinatha Rao, T.A., *op. cit.*, I (1914), Pl. XLII.
39. Tiwari, S.P., *Hindu Iconography*, New Delhi, 1979, Fig. 1.
40. *ARASI.*, 1930-34, Pl. CXX-C.
41. Sheik Ali, B., *History of the Western Gaṅgās*, Mysore, 1976, pp. 7-8, 42. He is a *Paramamaheśvara*. Another ruler, Tadaṅgala Mādhava (III), A.D. 430-466 closely related to Kādaṁbas was also a great devotee of *Tryambaka*, *Ibid.*, p. 55; *MAR*, 1912, p. 30.
42. Soundara Rajan, K.V., *Art of South India, Tamilnadu and Kerala*, New Delhi, 1978, pp. 39, 160, Fig. 37.
43. Banerjea, J.N., *op. cit.*, Lucknow, 1968, pp. 115-118, Jash, P., *History of Śaivism*, Calcutta, 1974, pp. 45-49.
44. In the Sōmeśvara temple, a niche sculpture of a four handed Ithaphallic *Lakulīśa* on a raised seat, with his four disciples—*Kauśika, Mitra, Garga* and *Kaurushya* on the pedestal was noticed. Besides, the *Trimukha* variants in the door-pediments, a variety of Śāktaic figures appear in sexual acts too. J.N. Banerjee has said that the *Lakulīśa* figures are closer to the Buddha's miracle scenes : Banerjea, J.N , *op. cit.*, New Delhi, 1974, pp. 6, 4, 80-81.

XXXV

Three Fragments from Bharhut Stupa

V.P. DWIVEDI

When Sir Alexander Cunningham discovered the ruins of the Bhārhūt *Stūpa* in the year 1873[1], the site was being used as a quarry. People freely used its material in temples, houses and cenotaphs. Cunningham excavated the site thoroughly the following year and took the surviving components sculptured railing and gates to the Indian Museum, Calcutta.[2] The Allahadad Museum, Allahabad, gathered some of the scattered pieces from the villages neighbouring Bhārhūt.[3] Two reliefs, first seen and published by Cunningham[4], later found their way to the Freer Gallery of Art, Washington D.C.[5] The Prince of Wales Museum, Bombay, also acquired some Bharhut fragments.[6] Till a few years back these were the only museums which had Bhārhūt sculptures in their collections.

The National Museum, New Delhi was looking for the Bhārhūt sculptures since its inception but could acquire some only in the year 1968[7]. These sculptures were obtained from a *gaṛhi* (A local chieftain's house) in the Batanwara village near Bhārhūt. Having realised the worth of these sculptures, the owner stripped off the *gaṛhi*-walls and a few more sculptures appeared in the market. Following his example, some other old houses were searched and yielded Bhārhūt fragments from their construction. Some of these found their way abroad[8], and some were acquired by the National Museum. Three of these Bhārhūt fragments form the subject matter of the paper.

1. FRAGMENT SHOWING A STŪPA AND AN ARCHED GATEWAY (PL. LXXXVI a). (Acc. No. 72 331, size: 33 × 39 cms)

The fragment shows a *stūpa* within a railing. The outer railing, composed of upright pillars and three cross bars, is plain. At the bottom of the fragment are shown square blocks, at alternating spaces, giving an impression as if they are the end pieces of wooden rafters. This device, often noticed at Bhārhūt,[9] was probably meant to convey an idea of upper storey. Another plain railing, smaller in size, is seen on the drums of this *stūpa* itself, perhaps marking the *pradakṣiṇapatha.*

The motifs, carved on the body of the *stūpa*, form the most interesting part of the fragment. Four vertical rows of the mango-leaves-*bandanvāra* adorn the dome. The tradition of decorating the houses or temples by mango-leaves still persists and is supposed to be auspicious.[10] These rows are alternated by four *pañchāṅgulika* mark or right hand impressions. Bhārhūt artists often depicted this motif on the *stūpa*[11] as this must have been quite popular, a fact attested by the literature as well. The Buddhist Sanskrit text *Mahāvastu* urged the faithfuls to pay homage to these Buddhist sanctuaries by erecting flags, banners and a white parasol as well as by making a railing (*vedikā*) and five-finger marks.[12] Several *Jātakas* and *Vinaypiṭaka* also refer to the five-finger marks.

The Ceylonese chronicle *Mahāvaṁsa* make it clear that these hand-marks were painted on the *stūpas*,[13] and not carved. When decorated with green mango-leaves and red-ochre right hand marks, the *stūpa* must have appeared a great spectacle to be watched. The *stūpas* were also provided with bird or animal-headed pegs to hold floral garlands hung on them.[14]

As to the meaning of these *pañchāṅgulika* marks, it is universally acknowledged as a protection from the Evil Eye.[15] This practice is still continued and in the time of Solar-eclipse pregnant cows are marked with red-ochre hand impressions. Further, the house, where a marriage is to be celebrated[16] or a son's birth takes place, is still decorated with red-ochre or yellow-*piṣṭi* (emulsion of *Besan*) right hand marks. Vogel suggested that these marks were impressed with four motives—protection, consecration, worship, and adornment. But to the popular conscience these elements were not always clear. They followed it as it was an old meritorious custom.

Yet another suggestion can be made about these impressions. As these hand-marks are invariably of right hand only, these could symbolise Buddha's *abhayamudrā i.e.*, those who approach *stūpa* for worship are assured of protection.

Another railing, this time having only two cross-bars, around the umbrellas-base is also seen. A long banner marked with squares and cross patterns is seen fluttering fixed on the railing towards the right side.[17] Perhaps, a similar one existed on left side also as is evident from the lower part of the shaft still visible. Three lotus flowers are carved in relief to fill the vacant spaces, while one on the right side is damaged. The Bhārhūt artist seems to have been very fond of lotus medallions and delighted in filling every available space with such flowers.[18]

An arched doorway is seen on the right side. A standing figure's back view, as if she is just passing through it for circumbulation of the *stūpa*; fill the doorway. Bhārhūt artists often adopted this technique of showing figures in the doorway to show the continuity of events and thus give a realistic touch.[19] Although partly damaged, the coiffure of the lady, her broad hips and tapering legs make it apparent that she is a female worshipper. Although such back-views are uncommon in other schools of Indian art except Gandhāra, Bhārhūt artists often depicted such figures.[20] Back-views of seated figures are also noticed in Bhārhūt carvings.[21]

The stone block, quite thick, in all likelihood, seems to have come from an upright railing pillar because only they provided scope for such elaborate carvings and not the coping piece or cross-bar. It is datable to 2nd century B.C.

2. FRAGMENT SHOWING SĀLA TREE IN BLOSSOM (PL. LXXXVI b) (Acc. No. 72.332; size 27×26 cms)

Bhārhūt artists seem to have taken delight in depicting several kinds of trees,[22] specially those connected with Buddha's life or *Jātaka* stories. In all probability the fragment under discussion shows a blossoming *Śāla* tree.[23] The tree is associated with many events in Buddhist mythology—birth of *Shākyamuni*, being the most important. At the time of his birth, queen *Māyā* was standing holding the branch of a *Sāla* tree. It was also the *Bodhi* tree of *Buddha Visvabhū*, and his name is inscribed below the representation of his tree.[24]

The fragment could be a part of either a upright pillar or a coping piece.

3. FRAGMENT SHOWING LOTUS CREEPER AND A GOOSE (PL. LXXXVI c)

The fragment shows an inverted lotus on top of which, probably, there was an elephant-feet and the lower tip of the trunk still visible. A goose, looking back with her stretched neck, is portrayed quite realistically. Goose often occurs,[25] sometimes on the coping pieces and on other occasions on pillars. In all likelyhood this fragment comes from an upright railing pillar. Some of the Bhārhūt pillars were, probably trimmed and made octagonal instead of being four sided. This fragment comes from the same position as that of the female figure holding a jackfruit in a pillar at the Allahabad Museum,[26] *i.e.*, a corner figure on a pillar.

Thus, these three sculptures, though fragmentary, add further to our knowledge of the Bhārhūt art which still remains an unsurpassed phase of Indian art.

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4. Cunningham, A., *op. cit.*, plate XXXI, 1 and 2.
5. Lippe, Aschwin, *The Freer Indian Sculptures*, Washington, 1970, plates 4 and 7.
6. Information gathered from my several visits to the Prince of Wales Museum, Bombay.
7. Agrawal, R.C., 'A short note on unpublished reliefs from Bharhut', *Lalitkala*, No. 14, New Delhi, p. 56.
8. The author saw a Bhārhūt piece in the Cleveland Museum of Art, Cleveland, U.S.A., in the year 1970.
9. Cunningham, A., *op. cit.*, fig. 7.
10. This motif could also be interpreted as merigold-branch or wheat-ear. But to me mango-leaves, tied in a thread, seems to be more plausible, otherwise it could not be tied around the base of the stūpa carved on the Prasenajit pillar; see Cunningham, A., *op. cit.*, pl. XIII. In this connection attention is also drawn to the depiction of mango-leaves carved on the Jetavana medallion; see Randhawa, M.S., *The Cult of trees and tree worship in Buddhist-Hindu sculpture*, New Delhi, 1964, fig. 11. Had these been wheatear, their tips would have pointed upward and not downwards.
11. Cunningham, A., *op. cit.*, pls. IX, XXXI, 1 and 4.
12. Vogel, J. Ph., 'The sign of the spread hand or 'five-finger token' (Pañcaṅgulika) in Pali literature' *Letterkunde*, 5 e Reeks, Decl. IV, 218-235. Koninklijke Akademic Van Wetenschapen, Amsterdam, 1919. I am grateful to my colleague Shri S.P. Tiwari for drawing my attention to this publication and making its copy available.
13. King Duttha-gamani instructed his brother Tissa to get the surface of the *stūpa* to be decorated by painters (*cittakarchi*) with three fold ornaments, *i.e.*, (*i*) a railing (*vedikā*), (*ii*) a row of full vases (*panti purṇaghaṭanam*) and (*iii*) a row of five-finger marks (*pañcāṅgulikapantikam*); see: *Mahāvaṁsa* (ed. Geiger), XXXII, 4, London, 1912, p. 220.
14. Lippe, A., *op. cit.*, pls. 6 and 7.
15. The Mandasor Stone Pillar inscription of Yashodharman (of *circa* A.D. 525-35) mentions *Pārvatī* decorating *Śivas's* bull with her palm impression (*Ukṣanam tām dathanah Kṣiti-dhar tanayā dattā* (*Pañcāṅgulika*); see: Vol. III, pp. 142-148. Reference Courtesy Shri S.P. Tiwari.
16. As far back as the time of Emperor Harṣa, preparation for princess Rājyaśrī marriage included *Pañcāṅgulika* marks : "*Piṣṭa Pañcāṅgula maradya manolukhala musalasila dyupakarnam*. See: Agrawal, V.S., *Harshacharita : Ek Sanskrittika Adhyayana*, Patna, V.S. 2021, p. 70.
17. For other similar flags on *stūpas*, see: Cunningham, A., *op. cit.*, pls. IX and XIII.
18. *Ibid.*, pls. VIII and IX.
19. Lippe, A., *op. cit.*, figs. 4 and 5.
20. Cunningham, A., *op. cit.*, pl. XVIII.
21. *Ibid.*, pls. XV and XVI.
22. *Ibid.*, pls. XXIX and XXX.
23. *Ibid.*, similar to the tree shown at XXIX, 2 and 3 and Randhawa, M S., *op. cit.*
24. Cunningham, A., *op. cit.*, pl. XXIX, fig. 2.
25. S.C. Kala, *op. cit.*, pls. 13, 14 and 23.
26. *Ibid.*, pl. 22.

XXXVI

A newly discovered Buddha Image from Aurangabad Caves

K.N. DIKSHIT

Situated in the back of Begumpura, a locality of mediaeval and modern Aurangabad in Maharashtra, the three groups of caves are hewn into the rocks of the eastern extensions of *Sahyadri* range.[1] The first group of caves which comprises of one *chaitya* hall and four *vihāras* is on the left hand side, whereas second group is on the right hand corner. The last one are more like natural caverns and are roughly hewn[2] (Burgess, 1978).

The present image (Pl. LXXXVII a and b) was noticed in 1976 while the fallen debris of the front of the cave on the right hand side of *chaitya* hall (group I) was cleared for strengthening the existing dilapidated frontage under the special repairs programme of conservation. The *chaitya* hall as is evident from the shape and form of octagonal pillars, barrel roof, rafters of roof and apse following wooden models and the absence of any sculptural embellishment, seems to have been excavated during the first phase of rock-cut excavation in this part of the country. Stylistically it belongs to Sātvāhana period, whose capital was at Paithan, south of Aurangabad and thus it is not surprising to find at Aurangabad a cave of this period (2nd century A.D.)[3] (Barrett, 1957). The sculptural decoration of this cave and other caves is a later phenomenon but fairly regular phenomenon adopted by *Mahāyāna* Buddhists as elsewhere. Some parts of the exposed *Buddha* image were quite fragile. The broken hands of *Buddha* and other parts of minor figures which were recovered from debris were meticulously reset. Efforts are being made to put the whole panel which has already left its core, to its original position. According to Barrett such figures may represent *Maitreya*, the future *Buddha*.

In this panel *Buddha* is depicted seated on a *siṁhāsana* (lion-throne) in *pralaṁbhapādāsana* presumably in an attitude of *dharma-chakra pravartana mudrā* (hands mutilated) with his feet resting on a *padma-pīṭha* (lotus pedestal). On his round face are seen the half-closed eyes with the gaze fixed at the tip of the nose which is slightly damaged and free hanging and elongated ear-lobes. The upper lip is thin and the lower lip is drooping. Head is shown with a hemispherical protuberance (*uṣṇīṣa*) and covered with snail-shell like curly hairs. *Ūrṇā* mark is absent on the fore-head. He wears *ekākṣika* on his left shoulders. Behind the head is carved a circular plain *prabhāvalī*. On either side of the head is shown a small standing figure of *Buddha* carrying *varada* below whom is carved a seated *nāga* image in *añjali-mudrā*. The stele around the main deity is exquisitely bedecked with the various figures and conventionalized motifs of the workmanship including the *paṭṭikās* (bands) embellished with rosettes and the diamond design and the two rampant leographs with a dwarf figure above the elephants with the prominent tusk which constitute the design of the *paikara*.

The main figure on the left is flanked by *Vajrapāṇi*, clad in a *dhoti* (*antaravāsaka*), holding *vajra* (?) on the knot of his *sash* at the hip and *chauri* by the right hand (Pl. LXXXVII c). On the right side is shown another colosal image of *Avalokiteśvara* with damaged front who like the former is also standing in *tribhaṅga* on a lotus pedestal and ornamented with *valayas* and *ratnakeyuras* and ear-rings (Pl. LXXXVII d.) As the figure of *Dhyāni Buddha* is absent on the crest, this panel can be assigned to the period of transition from *Mahāyāna* to *Vajrayāna*.

The *Vajrayāna*, like the irresistable *vajra*, completely eliminates all hurdles to the attainment of Buddhahood. It differs from the *Mahāyāna* less in respect of doctrine than in its method[4] (*Bhikṣu*, 1975).

The Buddhism at Aurangabad which was of *Mahāyāna-Vajrayāna* order, introduced *Dhyāni Buddhas* and worship of *Śakti* in sculptural art in Deccan somewhere between 6th and 7th century A.D. when the Chalukyas of Badami were at the pinnacle of their glory.[5] The representation of *Bodhisattva*, as *dvārapāla* bearing *chauri* is quite free in modelling and is also a dominant feature of this place. In this period the invocation of the name of *Avalokiteśvara* was sufficient for bringing salvation. This representation coupled with miracles was never so powerful and dynamic elsewhere in the Buddhist sculptural art. The seated figure of *Buddha* is the same unaltered form noticed earlier at Ajanta and Ellora, but the whole composition of the panel make it more elegant and interesting from those known outside Aurangabad.

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XXXVII

A Jaina Bronze dated in Siddha-Hema-Kumara Samvat from Satrunjaya (Saurashtra)

UMAKANT P. SHAH

The Jaina Bronze discussed here was preserved in one of the cells situated on the left side of the chief gate of the main temple of Caumukha Tunk on mount Satrunjaya, the holy jaina temple—city in Saurashtra, Gujarat State (Pl. LXXXVIII a and b). It is now said to have been removed and preserved under safe custody elsewhere on the mount Satrunjaya.

The inscription on the back of the image reads :

Śrī Siddha-Hema-Kumāra Samo 4 Vaiśākhava o
2 Gurau Bhīmapallī-satka Vya o
Hariścandra-bhāryā-Guṇadevī-śreyortham
Śrī-Śāntinātha-biṁbaṁ kāritaṁ//

The image of *Śrī Śāntinātha* was got prepared for the spiritual merit of *Guṇadevī*, the wife of merchant (*Vya* o=*Vyāvahārika*) *Hariścandra*, resident of *Bhīmapallī*, on Thursday, the second of the dark fortnight of *Vaiśākha* (*Vaiśākha-va* o=*Vaiśākhavadi*) in the year 4 of the *Siddha-Hema-Kumāra* Era.

The inscription is of interesting historical value as it is dated in an era not known from any other inscription. The title of the *Siddha-Hema-Kumāra Saṁvat* obviously refers to *Siddharāja Jayasiṁha*, the Caulukyan king of Gujarat (with capital at Anahilavada Patan) who ruled from *c.* V.S. 1150 to V.S. 1199 (or V.S. 1200), that is, from *c.* A.D. 1093 to A.D. 1142 or A.D. 1143, and also to *Hemacandrācārya*, the great jaina scholar and monk as well as to *Kumārapāla*, the successor of *Siddharāja Jayasiṁha*. Both *Hemacandra* and *Kumārapāla* are reported to have died in V.S. 1299=A.D. 1242.

Ācārya Hemacandra composed his famous grammer of Sanskrit (and Prākṛt), entitled *Śabdānuśāsana*, at the request of *Siddharāja Jayasiṁha* and the grammer came to be known as *Siddha-Hema-Śabdānuśāsana*. But in our inscription *Siddha-Hema* should better be interpreted as referring to *Siddharāja* and *Hemacandra* rather than to *Siddha-Hema* grammer. It is a very rare occurrence to find an era named jointly after three personalities; in our case especially only two of them are kings while the third is a jaina monk who was also a man of letters.

Obviously, this era could have been used in this inscription only after *Kumārapāla* succeeded on the throne after *Siddharāja*'s death, *i.e.*, after A.D. 1142-43.

The only literary reference to this era comes from *Hemacandra*'s commentary on his own work *Abhidhānacintāmaṇi*. This lexicon is said to have been composed in V.S. 1207-08=A.D. 1150-51[1]. In his commentary on *Abhidhānacintāmaṇi*, 6, 171, *Hemacandra* mentions this era in the following way while explaining *saṁvat=varṣa* :—"*Yathā Vikrama-saṁvat, Siddha-Hema-Kumāra-saṁvat*".

Thus this era was perhaps started sometimes after A.D. 1142-43 and before A.D. 1150-51. Hence, this bronze, inscribed in the year 4 of this era should date in an year between A.D. 1147 and 1155, that is, in *c.* A.D. 1150.

No other reference to this era is yet found in inscriptions or in literary sources. It seems to have fallen out of use soon after attempts were made to start it. Perhaps the era was not started and acknowledged by the Government.

It may, however, be noted incidentally that a certain *Siṁha-saṁvat* was possibly started by *Siddharāja Jayasiṁha*. This is supposed to have been started to commemorate his conquest of Junagadh, Sorath. The *Siṁha Saṁvat* starts from V.S. 1170=A.D. 1113-14[2]. An inscription referring to some gifts to a mosque at Devapattana Somnath, now preserved in Harsadamata shrine, gives its date in four different eras, namely, *Hijri*, *Vikrama*, *Valābhi* and *Siṁha* eras. It is dated in *Hijri* era 662, V.S. 1320, *Valābhi saṁvat* 945 and *Siṁha saṁvat* 151 which would be equal to A.D. 1264.[3]

The inscription on our bronze refers to it as an image of (*jīna*) *Śāntinātha*. *Śāntinātha*, the sixteenth jaina *tīrthaṅkara* has the deer as his cognizance in the *Śvetāṁbara* jaina tradition. But in fig. showing the front, one would find a small figure of a lion carved on a small metal piece inset in the centre of the *siṁhāsana*. It is, therefore, reasonable to conclude that this inset was done later when the original symbol in its place had been rubbed out during daily worship, or that there was no symbol and later this metal piece was inserted by some one.

The bronze is well-preserved and is a good example of the style of middle twelfth century A.D.

Bhīmapallī, referred to in the inscription was in Northern or North-Western Gujarat, probably in Saurashtra. *Anaka* or *Arnorāja*, son of *Dhavala*, fore-father of *Viśāladeva* (of the Vaghela branch of the Solankis), was made a *sāmanta* and ruler of *Bhīmapallī*, by king *Kumārapāla*.[4]

On two sides of the lion-throne of the *jīna*, on top of the big *pīṭha* (pedestal) are sitting two-armed *yakṣa* and *yakṣī*, on a lower level, on this *pīṭha* we have two figures of worshippers with folded hands.

For comparison regarding the style of the jaina bronzes of this period, may be noted three bronzes from the National Museum, New Delhi, discussed else where by me[5], as fig. 4 (National Museum No. 66.37) dated in V.S. 1126 (=A.D. 1070).

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1. This date is given by Kapadia, H.R. in his *Jaina Saṁskṛta—Sāhitya—no Itihāsa*, Part I (in Gujarati), p. 115, where he cited the authority of *Hema-samīkṣā* by Shri Madhusudan Modi, p. 70. I have not been able to refer to *Hemasamīkṣā*. The *Abhidhāna-Cintāmaṇi*, III, vv. 376-377 refer to *Kumārapāla*, as a king.
2. Shastri, H.G., *Gujaratano Prācīna Itihāsa* (Ahmedabad, 1964), p. 193.
3. *Ibid.*, p. 228. For use of *Siṁha Saṁvat*, also see, Majumdar, A.K., *Chalukyas of Gujarat* (Bombay, 1956), p. 70. Some scholars believe that *Siṁha Saṁvat* was started in Saurashtra by some other ruler.
4. *Gajaratno Rājakīya ane Sāṁskṛtika Itihāsa*, Vol. IV, p. 85.
5. See Shah, U.P., "A Few Jaina Bronzes from the National Museum, New Delhi", *JOI.*, (Baroda), Vol. XXIV nos. 1-2 (1974), pp. 238 ff., Fig. 5 (National Mu. no. 63. 1082) dated in V.S. 1217 (=A.D. 1160), and fig. 6 (National Mu. no. 63, 1081) dated in 1180 (=A.D. 1123-24).

XXXVIII

Two Bronzes from Karnataka

KARL J. KHANDALAVALA

In the Government Museum, Bangalore there are two metal images (Pls. LXXXIX a, b; XC a-b and XCI a-b) which immediately draw the attention of any researcher in the subject of South Indian Bronzes. Generally speaking, any reference to South Indian Bronzes alludes to the splendid series of Pallava metal images, which are limited in number, and the vast production of such images during the rule of the Chola kings. It was but natural that such a vast production should vary in style and quality. Though the art of casting metal images in the South is to be traced to periods earlier than the time of the Pallavas of Kāñchi under Mahendravarman and his successors, its real flowering commences in the late eighth century A.D. In the beginning the images were of small size but in the late Pallava period a few images of quite considerable proportions were also made like the beautiful *Kalyāṇasundaramūrti*, first published by Dr. Nagaswamy.[1] The Cholas continued this tradition of large sized images right from the time of Āditya I, though no bronze image can firmly be ascribed to his reign. But the recent discovery by Dr. Nagaswamy of a large size *Pārvatī* dated in the eleventh year of the reign of Parantaka Chola I (A.D. 917) and the contemporary *Naṭarāja* (uninscribed) of which she is the consort has caused a revision of ideas. These two images establish a fully developed art of making large sized metal images of out-standing merit in the Chola style by the beginning of the tenth century A.D. The majority of Pallava metal images, which are few in number, are of small or medium size. The early Chola style is distinguishable from the Pallava style though its roots like that of its stone sculpture are to be found in late Pallava art. It is in the Chola period that we find a vast production of metal images in Tamilnadu, which influenced also other centres in South India. Though formerly our ideas on provincial and regional developments of this art were somewhat hazy an increasing number of new discoveries has enabled us to isolate some of these developments. Today we are aware of a Pandyan group, a Kerala group, a Chalukyan group and so forth. These different regional groups though derived basically from the Chola style introduced elements which imparted to them an individuality of their own. The two images under discussion belong to the Chalukyan group. Though there was a large production of metal images in the Karnataka region from about the fifteenth to sixteenth century onwards, earlier examples of the Chalukyan style are somewhat uncommon. Incidentally, we may observe that the inscribed *Lokeśvara* dated in the year A.D. 968 and the two other bronzes related to it in the Mañjunāth temple at Kadri, Mangalore, do not belong to the Chalukyan school, as some writers have suggested, but are the work of a Chola sculptor. The later bronzes from the Karnataka region usually have dark brownish patina, but the two bronzes in the Bangalore Museum have the warm black patina usually seen on Chola bronzes which are not in worship. Of course, all South Indian bronzes when first cast, are coppery in colour but in course of time the metal does acquire a certain patination particularly when they are out of ceremonial worship. Excavated bronzes of course vary greatly in patination depending on the soil conditions in which they have lain burried. This has been observed in the many treasure troves which have come to light.

The two bronzes which form the subject matter of the present article come from *Nandī*, which is not distant from Bangalore, and was an area once under the rule of the Nolambas and later the Chalukyas.

Some lingering Nolamba influence can be observed in them though they are best regarded as belonging to the early Chalukyan group. On stylistic ground the *Somāskanda* image (Pl. LXXXIX a) can be ascribed to the early eleventh century while the *Chandraśekhara* image (Pl. XC b) is somewhat later and, probably, belongs to the period A.D. 1050-1075. Both may, however, be the work of the same guild which developed more decorative tendencies in the span of years which separates the two images. It may be noted that the face of *Śiva* in both images, the torso, the abdomen and the legs all be taken a common idiom in their fashioning. The *Chandraśekhara* (Pls. XC b and XCI a-b) is a very elegant and decorative image. One of the characteristics of early Chola sculptures which both the images from *Nandi* possess and which is even more marked in the *Chandraśekhara* than in the *Somāskanda* is that the ornamentation and trappings, namely, necklaces, bracelets, armlets, anklets, *udarabandha,* waist girdles, *kīrtimukha,* buckles and *chhannavīra* are all pronouncedly raised from the surfaces of the body creating the effect of richly embossed metal work. In between the necklace of *Chandraśekhara* and the curves of the upper braids of the *chhannavīra* are to be seen an embossed trefoil flower or leaf linked to embossed petals on either side. This feature is not seen in Chola images. The outsize beautifully wrought *kīrtimukha* buckles, holding the waist girdle, with a string of pearls emerging from its mouth which bisects the median loop of the girdle is another distinctive feature. Such a large *kīrtimukha* buckle dominating the lower part of the body is not seen in Chola bronzes but can on occasion be observed in Chalukyan stone sculpture. The median loop is rather conventionalized being small and shaped like the "U", a feature not normally seen in early Chola art till about the middle of the eleventh century, a circumstance which has weighed with us in our dating of *Chandraśekhara.* The presence of the *chhannavīra* worn by *Chandraśekhara* who is normally seen without it in Chola sculptures also appears to be a regional innovation. In his right upper hand he holds a *paraśu* (axe), held between two fingers and in his upper left, the *mṛga* (deer), the rear left leg of which is also held between two fingers with its head turned backwards. The lower right hand is in *abhaya mudrā* and the lower left in *varada mudrā.* Though the legs are unusually slender and markedly elongated in contrast to the torso nevertheless, these very features impart to the image its exceeding grace. The treatment of the torso and the abdomen is in the Chola manner of the eleventh century as also the tight modelling. It may be noted that in Pallava sculpture, the modelling of the torso and abdomen is much looser. The face in both images is not characteristically Chola and this is largely due to the manner in which the nose is fashioned being slightly short and broad, a feature which we have repeatedly noticed in sculptures from the Karnataka region. In early Chola bronzes it is somewhat sharper though nowhere so sharp and prominent as it is in the later Chola period being even more so in Vijayanagara period bronzes. The *śiraś-chakra* at the back of the head (Pl. XCI a) is of the round type with a lotus engraved on it and not the star shaped type common in early Chola bronzes. The curls at the back of the head (Pl. XCI a) are schematic and contained by the upper loop of the *chhannavīra Chandraśekhara* wears a *makara kuṇḍala* in the right ear and a *patra kuṇḍala* in the left ear. Both earrings are prominently displayed. The eyes are rubbed but nevertheless, the expression on the face is serene and meditative. As is usual with metal images from the Karnataka region the image stands on circular pedestal divided into two parts and which itself rests on the flat rectangular *pīṭha.* The upright projections on either side of the *pīṭha* are for tying the image when taken in procession. They are not stays into which a *prabhā* was to be inserted as is generally thought.

When all the characteristics of the image are taken into consideration it becomes evident that the inspiration was of eleventh century Chola *Chandraśekhara* bronze but the Karnataka sculptor was no mere imitator and has created an image of singular individuality and beauty by stamping it with his own genius.

The *Somāskanda* image (Pl. LXXXIX a) is an equally impressive image. The face of *Śiva* though badly rubbed can be seen to have the same facial characteristics as that of the *Chandraśekhara.* The marked depression on the forehead was for placing a gem therein which was probably retained in place by some device. Though the *Somāskanda* image is not so heavily ornamented as that of *Chandraśekhara,* its figure of *Śiva* is similar to the latter in the handling of the torso and in general proportions though this is less evident because it is a sitting figure. The lower necklet worn by *Śiva* is only slightly rounded and

thus has a somewhat flat appearance. At middle of this lower necklet it is shaped into a point. This type of necklet is frequently noticed in metal images from the Karnataka region. *Śiva* wears a *makara kuṇḍala* in his right ear and a *patra kuṇḍala* in his left. His waist girdle is also held by a *kīrtimukha* buckle but not so prominent as the one on *Chandraśekhara*. *Śiva* holds a broken *paraśu* in his upper right hand and the leg of a broken *mṛga* in his left hand. These rest on his palms; an early feature. His lower right hand is in *abhaya mudrā* while his lower left is in *āhūya-varada mudrā*. The folds of *Śiva's* short *dhoti* are shown as flat bands which is another innovation as compared to the Chola style.

Pārvatī wears a conical, *karaṇḍa mukuṭa* type headgear. The *hāra* (necklace) worn by her is flat with a string of pearls on its upper edge. Her figure is buxom with prominent breasts with an *upavīta* falling in between them. Though *Pārvatī* is in the Chola tradition, traces of Nolamba influence can be discerned. Her *sāri* is in schematic folds, on her arms she wears an upper armlet and a lower one close to the elbow. This lower armlet has a small button-like projection on the outer side derived from Chola bronzes where in the early period this projection is prominent in the form of a fan-shaped tassel. Its first appearance is as early as the reign of Āditya Chola I, in one of the female stone sculptures of the Nāgeśvarasvāmī temple at Kumbhakonam. Later on, it decreases in dimensions and in the eleventh century, is often just a button-like projection. *Pārvatī* holds a lotus bud in her right hand while the left is in *varada mudrā*. The *śiraś-chakra* of *Śiva* is broken but that of *Pārvatī* is circular with perforations which also suggests an eleventh century date (Pl. LXXXIX b). The locks of both *Śiva* and *Pārvatī* are treated with greater freedom than those of *Chandraśekhara* suggesting a somewhat earlier date for the former image. The presence of multiple waist girdles worn by both *Śiva* and *Pārvatī*, seen clearly from the back (Pl. LXXXIX b), is a Chalukyan characteristic possibly borrowed from *Viṣṇukuṇḍin* style of sculpture. Another Chalukyan characteristic exclusive to the school and never found in Chola bronzes, so far as we are aware, is the presence of *Śiva's bull* vehicle *Nandī* on the lowest band of the *pīṭha* (Pl. LXXXIX a). For comparison we have reproduced a stone sculpture from the Karnataka region, in the Prince of Wales Museum, Bombay, where *Śiva's* bull and *Pārvatī's* lion are both shown at the base of the sculpture (Pl. LXXXIX a). Another unusual feature consists of the roaring lions on either side of the *pīṭha*. This device must have been borrowed from a Chola style of bronze where also, however, it is unusual. It is equally rare in Pāṇḍyan bronzes. The *pīṭha* is surmounted by two low circular pedestals on which the god and goddess are seated. These pedestals have a lotus leaf pattern engraved thereon. *Skanda* is missing from the group. *Śiva's* face is very rubbed but that of *Pārvatī* (Pl. XC a) shows the typical nose of Karnataka bronzes as seen in *Chandraśekhara*. The two upright projections from the *pīṭha*, as well as the rings at the base of the *pīṭha*, are meant for tying the image securely when taken out in procession. Both images are aesthetically of fine quality and afford us two highly interesting examples of early Chalukyan metal sulptures for study.

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XXXIX

Siva Gangadhara on a Terracotta from Rang Mahal

KIRIT L. MANKODI

A terracotta plaque datable to the fourth century A.D. which in all probability came from Rang Mahal in Ganganagar district of Rajasthan represents *Śiva Mahādeva* with three visible faces seated in company with *Umā*; above the head of *Śiva* are two figures, and two other worshipping figures kneel on either side of the divine couple (Pl. XCII a-b).[1] The subject of the plaque is usually described simply as *Umā-Maheśvara.* However, it is possible to identify the subject as representing the well known epic and Puranic myth of the descent of *Gaṅga.* The identification of *Śiva* in his *Gaṅgādhara* aspect would seem to have been missed by scholars; also missed is the fact that the central face of the god has a protruding tongue which gives to this face a ferocious or *ghora* aspect, though its rendering is crude. This terracotta plaque therefore acquires a special interest for two reasons : firstly because it is probably the earliest known representation in art of *Śiva* as *Gaṅgādhara*; and, secondly, because it shows that in early carvings of the descent of *Gaṅgā Śiva* is portrayed with *raudra* features—as we may see also in the *Gaṅgādhara* panel on a sixth century pillar from Mandasor to be published in a forthcoming volume of *Journal of the India Society of Oriental Art.* Therefore, with a view to establishing a correct identification of the theme, we shall look again at the plaque from Rang Mahal, connecting only on : (1) the two figures above the heads of *Śiva,* (2) the two attendant figures lower down, and (3) the central face of *Śiva* showing *raudra* features.

(1) THE TWO FIGURES ABOVE ŚIVA'S HEAD

At the top of the panel there is a female figure which is mostly broken away except for the head and one arm; she is swimming or floating down towards *Śiva,* her arm raised in salutation. Above the central head of *Mahādeva* is a bust, female as may be judged by the long hair the ends of which are probably clutched by her in her hands; she is in a frontal aspect, her arms raised as if in a plunge Both these figures should be recognized as the personified river *Gaṅgā* : the floating attitude of the one and the long flowing tresses of the other both evoke the conception of a flowing stream, and the posture of the arms of the second figure suggests a fall. Thus, we may interpret the top part of the panel to mean that the river *Gaṅgā,* rushing down from the sky, lands upon the head of *Śiva,* as the god nobly gestures to her with his hand; and again, with her arms thrown up, she prepares for her plunge down to earth.

If further support is needed for our identification, we may point out that in some later sculptures in which the river is represented in human form as well as in her natural state, namely, at Elephanta, Aiholi and Mandasor, similar means convey, though with greater eloquence than our small and early terracotta plaque, both the great fall and the velocity of the flood : the arms of the three leaping busts are extended towards the ground (Mandasor); or she is perched above the watery arch (Elephanta); or her scarf swells out to make a whirlpool (Mandasor).

(2) THE TWO ATTENDANT FIGURES

If the identification proposed here is correct, then there will be no difficulty in explaining the two remaining figures, kneeling with their hands folded, at the bottom of the panel : in the left corner *Bhagīratha* expressing thanks to *Śiva* for his benevolent act will be recognized by his princely head-dress, while the female figure in the right corner must be *Gaṅgā*, shown a third time, offering worship after arriving on earth. These two personages resemble the two figures worshipping *Śiva* in the lower part of the Mandasor panel (to be published), except that their positions are interchanged. The occurrence in the present plaque of the second kneeling female, here identified as *Gaṅgā*, besides the goddess *Umā* who is already present, would lend further support to the proposed identification of the small worshipping femele in the Mandasor panel with *Gaṅgā*.

(3) ŚIVA'S UGRA FEATURES (PL. XCI b)

The three faces correspond to some of the five faces of the total manifestation of *Śiva* : *Iśāna*, *Tatpuruṣa*, *Aghora*, *Vāmadeva* and *Sadyojāta*. Out of these five, *Iśāna*, the highest, is generally not represented in art and the fourth or back face is left to the imagination of the viewer as it cannot possibly be carved on a relief—such as the present terracotta plaque. While the two side faces on the Rang Mahal plaque have two eyes, there are three on the central face. What is more interesting is that the tongue of this face projects from the mouth. Although in this early example of art it only looks like a lump, there is hardly any doubt that the central face is intended to be *ghora*.[2] As already pointed out, one other *Gaṅgādhara* panel on a sixth century pillar at Mandasor also shows this feature.

It will be seen that the proposed identification allows for all the figures and their roles to be satisfactorily accounted for, and for the entire story of the descent of the river to unfold on a single plaque : *Śiva Mahādeva* prepares to receive the river—the river leaves her heavenly place—falls upon *Śiva's* head—lands on the earth—the prince venerates *Śiva*. The rendering of the myth is in the mode of "continuous narration" well known from earlier Indian art.

In the writings of other scholars, the principal story illustrated by the plaque was not correctly interpreted, and consequently the companion figures of *Umā* and *Maheśvara* were all summarily explained away. Thus, V.S. Agrawala, describes the two figures above *Śiva's* head, here identified with *Gaṅgā*, as a pair of *vidyādharas* showering flowers.[3] M.K. Dhavalikar also dismisses the four attendant figures as *vidyādharas* and devotees.[4] J.C. Harle, takes the bust above *Śiva's* head to be part of the god's own body, and suggests that the panel represents a composite image of *Śiva*. He describes the bust of *Gaṅgā* as a figure rising head and shoulders above *Śiva's* head, and goes on to say that this image of *Śiva* "thus belongs to a class of images with heads or figures emanating from them"[5], no doubt this error is due to the fact that there is some genuine composite images such as the "*Mahādeva*" from Parel (Bombay) and the *Viśvarūpa Viṣṇu* from Gadhwa in Allahabad district of Uttar Pradesh[6] with which Harle proceeds to compare the plaque, p. 47. But on Harle' interpretation it cannot be explained why the hair of *Śiva's* fourth head is kept loose so that it spreads out on either side, and why the ends of the hair are clutched by him. Further, this upper bust is slim in contrast to the imposing form of *Mahādeva*, and it conceived on a different scale, the same scale as the two figures lower down. The slender form and small size of *Gaṅgā* must be recognized as the means where by the artist has suggested the greatness of *Śiva* and the femininity of the personified river by the same means he also empasized the separating the two figures although on the panel they are juxtaposed physically.

Datable to the fourth century A.D., the terracotta from Rang Mahal provides probably the earliest known type illustrating this particular myth with *Śiva* in his *ugra* aspect. Although *Gaṅgā* here is not personified as *Tripathagā*, unlike her forms at Mandasor, Aiholi and Elephanta, yet, inasmuch as her figure is shown thrice—in heaven, on *Śiva's* head, and on earth—indicating two out of her three "courses", she comes close to illustrating the triple incarnation. As is well known, the river *Gaṅgā* is called *Tripathagā* as it flows in all the three worlds; on heaven, where the river originally flows its name is *Mandākinī*; on earth, where it was brought by *Bhagīratha*, it is known as *Bhāgīrathī*; and in the netherworld, which it entered to purify the ashes of the sons of *Sāgara*, it is known as *Bhagavatī*. In

the sixth century carving at Mandasor we see the early type of the image; if it may be so described, fully expressed : *Rudra* with a violent countenance and *Gaṅgā* in her triple incarnation, and the latter feature is shared also by the other sixth century carvings (Elephanta, Aiholi). *Gāṅgā* was of course commonly known under this aspect in India, and especially in the earlier period poets and composers of royal eulogies sometimes evoked this epithet of her comparing a king's fame encompassing the three worlds, or heaven and earth, with the waters of *Gaṅgā*.[7]

Eventually, both these iconographical elements—the ferocious aspect of *Rudra* and the triad of the river—went out of favour. The earlier type expressing a violent mood may have been felt to conflict with the benefactor's role of *Śiva* in the myth, and an urge to create a visual form which would be truly consistent with this role led later artists to portray the god in a benign aspect. But it is not clear what prompted the later sculptors to preference for a solitary form of the river goddess; for, the earlier conception, with its thrice repeated limbs, allowed them to construct a dynamic image expressing rush of water—besides adding a strong narrative emphasis to the carving.

In order to further emphasize the supremacy of *Śiva*, artists sometimes introduced *Gaṅgā's* pride into the story.[8] As *Gaṅgā* looks down upou *Śiva* from the sky, she thinks too little of *Śiva's* capacity to hold her and comes down in a torrent so as to drown him, but she is trapped by the great god in his matted hair where she has to wander for many long ages before *Śiva* releases her by untying a few tresses of his hair, thus taming her pride.

While woman's vanity is exemplified by the figure of *Gaṅgā*, *Śiva's* principal consort *Umā* illustrates woman's jealousy. As she witnesses this drama, she feels ill at ease for *Śiva* has not only obtained another consort, but has placed her on his very crown, while *Umā's* place is only by his side. (According to one myth, *Gaṅgā* is a daughter of *Himālaya* and *Menakā* and elder sister of *Umā*[9].

While in sculptural art one cannot always get an unequivocal representation of woman's conceit and rivalry, for these two moods are more appropriately handled in the discursive mode rather than the representational, there is a definite suggestion in the sculptures where *Śiva* loosens only one or two single locks and where *Umā* instead of standing next to her consort, draws away. But when it comes to literature whether in ornate poetry or inscribed *praśastis* or other narrative literature, we have any number of descriptions of the petty disputes between the two wives of *Śiva*.

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1. The plaque was recovered from a small chamber in the fort at Bikaner; see *ARASI.*, 1917-18, p. 22. It measures 37×23 cm and is displayed in the *Gaṅgā* Golden Jubilee Museum, Bikaner, under Accession No. 228.
2. V.S. Agrawala (P.K. Agrawala, *ed.*), *Gupta Art*, Varanasi, 1977, p. 109, identifies the central face as *Tatpuruṣa*, the right face as *Vāmadeva-Umā*, and the left face as *Aghora*. A later carving of *Śiva Gaṅgādhara* in which *Śiva* has grotesque features may be cited : along one side of a square tank near the village Kallikote in Ganjam district of Orissa is carved the myth of the descent of *Gaṅgā*. *Śiva* is represented with five faces and with outspread hair. The carving may date to the twelfth-thirteenth century A.D. Along the other sides of the tank are carved various other myths of this river : its origin from *Viṣṇu's* big toe, its course past the sage *Jaṇhu's* hermitage, birth of the eight *Vasus*. For an account of this interesting water-tank, see Steven Darian, *The Ganges in Myth and History*, Honolulu, 1978, pp. 27-28, and N. Annandale, "A Working Model of the Origin of the Ganges in a temple in Ganjam", *Memoirs of the Asiatic Society of Bengal*, VIII (1922-29), pp. 249-256.
3. Agrawala, V.S., "The Religious significance of the Gupta Terracottas from Rang Mahal", *Lalit Kala*, 8 (1960), p. 61; see also Agrawala, V.S., *Gupta Art*, p. 109.
4. Dhavalikar, M.K., *Masterpieces of Indian Terracottas*, Bombay, 1977, p. 60; Goetz, H., *The Art and Architecture of Bikaner State*, Oxford, 1950, p. 26, described the descending river as "a flying *gaṇa*"; a similar error is made by Ballabh Saran, in Hanna Rydh, *Rang Mahal* : The Swedish Archaeological Expedition to India, 1952-54 (Lund, Bonn, Bombay, 1959), p. 206.
5. Harle, J.C., *Gupta Sculpture*, Oxford, 1974, p. 54.

6. The image from Parel is illustrated in Zimmer, H., *The Art of Indian Asia*, New York, 1955, I, Fig. B 16; for the *Viśvarūpa Viṣṇu*, see Harle, Pl. 73.
7. The Gupta emperor Samudragupta's fame, "ever heaped up higher and higher by the the development of his liberality and prowess of arms and composure and study of the precepts of the scriptures, travelling by many paths, purifies the

XL

A Harihara Image recovered from Jogeswari and the problem of Dating Gharapuri (Elephanta)

SADASHIV V. GORAKSHKAR

In the southern courtyard of the Jogeśwarī caves, near Bombay, a male torso was being used as lampstand. The head was missing. Nearby was an upper portion of a *jaṭā mukuṭa* being worshipped as a *liṅga*. In 1975 both these were acquired for the Prince of Wales Museum[1] through the good offices of Sri M.N. Deshpande, who was then the Director General of the Archaeological Survey and Shri S.R. Rao, the Superintendent of the South western Circle. At the museum we realised that the *jaṭā mukuṭā* and the torso belonged to each other. Unfortunately the portion of the face below the *jaṭā* is missing and so is the torso damaged below the knees; even the hands are missing.

It is a standing image of *Harihara*, the right half showing *Hara* or Śiva and the left half showing *Hari* or *Viṣṇu* (Pl. XCIII a and Pl. XCIV a). *Śiva's* matted hair is indicated by locks falling on the right shoulder in long curls. *Śiva* is *kṛttivāsa, i.e.*, wears a tiger-skin indicated by a girdle of paws at the waist in our image. He is *ūrdhva-retas* or ithyphallic, but this feature is conspicuously absent in our image.

The left half, that of Viṣṇu, is shown with the *pitāṁbara* or the silk *dhoti* draped upto the knees and secured at the waist by a thick, rolled cloth with a loop in the front. This feature, seen in the images of *Viṣṇu* and *Skanda* from Gharapuri[2] and the *Śiva*[3] from Parel, has been characteristic of contemporary Western Indian sculptures. Even the *kaṭaka hasta* holding the *śankha* at the thigh is very similar to the feature observed in the *Viṣṇu* torso from Gharapuri. The surviving tall coiffure (Pl. XCIII b-c) comprises of, *Śiva's* matted hair with the crescent moon on the right side while on the left is seen the half portion of the *kirīṭa mukuṭa* of *Viṣṇu* similar in style and ornamentation to that of the *Trivikrama* from Gharapuri (Pl. XCIV b) or even the *Garuḍārūḍha Viṣṇu*[4] in the *Ardhanārīśwara* Panel from the same site.

An interesting feature noticed here is the pattern of the full blown lotus on the top of the head (Pl. XCIII c). Quite ostensibly it was a practice to decorate the *jaṭa mukuṭa* with such a pattern for the matted hair of *Brahmā* from Gharapuri[5] is similarly decorated but not so the crown of the *Trivikrama*. The only visible ornament is an *ekāvalī* quite similar in style to that worn by the *Trivikrama* or the *Mahāyōgīśvara Śiva* in the north porch at Gharapuri.[6]

The broken torso indicates that the image must have had four arms. There are two versions available about the emblems of a *Harihara* image that need be considered here. The *Matsya Purāṇa* ordains that the right half, that of *Śiva*, should show one hand in the *varada mudrā* and should hold the *triśula* in the other hand. The left half, of *Viṣṇu*, should hold the *śankha* and the *chakra* in his two hands.[7]

The *Rūpamaṇḍana* on the other hand preserves tradition which requires that *Śiva* should hold the *akṣamālā* and the *triśula*.[8] In our image the only emblem that has survised is the *śankha* on the left half of Viṣṇu. It may be possible to surmise on the evidence of the *Śiva* from Parel, that the emblems held in the right hands must have been an *akṣamālā* and a *triśula*. The missing left hand may have held the *chakra*.

Harihara images have been variously named. Some noteworthy epithets are *Haryārdha*, *Kṛṣṇa-Śankara*, *Śiva-Nārāyaṇa* and *Sadāśiva-Hṛṣikeśa*[9]. The problem about the origin and development of this cult image has not been satisfactorily examined. The earliest indication of such a syncretistic icon, as pointed by J.N. Banerjea, is seen on a coin of Huvishka.[10] The icon on this coin is ithyphallic and holds the *triśula*, *vajra*, *chakra* and the *mṛga* (antelope) in its four hands. Banerjea has suggested this as the beginning for the iconography of *Harihara*. The earliest fully evolved example of this deity according to him is the one from Badami cave 1 dateable to the third quarter of the sixth century A.D.[11] Our image which is certainly earlier than the Badami example can then be considered as the earliest representation of *Harihara*. Even iconographically they seem to belong to different traditions. In its present mutilated form we can not guess whether or not it had attendant figures like the one at Badami.

Here we are confronted with a major consideration. Does the image at all belong to the Jogeśwarī complex or did it originally belong to the workshop where other images recovered from Gharapuri and now preserved in the Prince of Wales Museum were done ? We are inclined to opt for the latter proposition mainly for two reasons. Firstly, the stone in which it has been carved belongs to the same variety in which the other loose sculptures recovered from Gharapuri have been carved. It is common knowledge that the rock at Jogeśwarī is full of loose earth because of which most of the images at Jogeśwarī have been completely destroyed.

Secondly, the stylistic similarities between this image and other loose sculptures from Gharapuri are striking and the various features, as pointed out above, so similar that it is difficult to assign this image to a different workshop or another date. Evidently there was a close link between the two centres as can be inferred from the copper pot found at Gharapuri.[12] The inscription on the pot mentions that the pot was made at the *Śrīpurī viṣaya* of the goddess Jogeśwarī in the year A.D. 1086. The transfer of an image from one site to another has been a fairly common practice. It can thus safely be deduced that the present image also must have belonged to the Gharapuri complex and not to Jogeśwarī even though, now recovered from the latter site.

There is yet another consideration. To justify the existence of an icon syncretizing the two faiths, Śaivism and Vaiṣṇavism, there is evidence of other Vaiṣṇava imagery at this essentially Śaivite complex. Extant sculptures show a *Viṣṇu*, a *Trivikrama* and a *Garuḍa*.[13] But then *Brahmā* is also present to complete the Brāhmanical triad.[14] The question of sectarian shrines in the Western region needs a fresh examination. It seems clear to us that this was the period when amongst the Brāhmanic triad, the cult of *Śiva* was more predominant on the western coast evidently because of the strong *Pāśupata* influence radiating from its seat at Karvan near Bharuch. Nevertheless, the other two gods of the triad were not only acknowledged but a syncretization of the two cults. *Śiva* and *Viṣṇu*, had already commenced. Independent corroboration in support of this statement is obtained from Badami where we come across an image of *Harihara* in both its Śaivite and Vaiṣṇavite caves, caves 1 and 3.[15] More than a century later, at Osia, at the temple designated as *Hari-Hara* by D.R. Bhandarkar, an image of this deity is represented along with those of *Trivikrama* and *Narasiṁha*.[16] This tolerent attitude might well have been a contribution of early foreigners who understandably played host to different ideologies.[17]

The Gharapuri caves could be considered as a *Pāśupata* monument more relevantly by the presence of the *Maheśamūrti* than by the identification of the seated *Yogī* in the northern porch as *Lukulīśa*, the legendary 28th incarnation of *Śiva* according to the *Purāṇas*.

This identification which has gained vogue is beset with problems. Firstly, such interpretation is hypothetical as both the hands of the figure are broken and missing thus depriving of any iconographical evidence to suggest whether or not the figure held the *lakuḍa* or the staff and the *mātuluṅga* or the citron fruit which are *Lakulīśa's* distinguishing marks. The *Lakulīśa* image in the Dhumar Lena at Ellora is considered as a parallel to infer that the Gharapuri image is that of *Lakulīśa*.

Even though the *Pāśupata* cult is considered to have been rejuvenated at Karvan in Gujarat around the first century A.D., we have hardly any evidence of *Lakulīśa* imagery at least till the period of the *Śaiva* monuments in the Deccan. The Mathura Pillar inscription of the period of Chandragupta II (*c*. A.D. 385) refers only to *mukha-liṅgas*[18] and hence of no value in so far as a *Lakulīśa* image is

concerned. From the extensive mediaeval imagery of this form it is evident that *Lakulīśa* being a human being was essentially represented as an ascetic like the *Buddha* and the *Jina* and hence devoid of ornamentation.[19] While it cannot be denied that Gharapuri's two contemporary monuments—Jogeśwarī and Dhumar Lena—have a *Lakulīśa* figure it may be noted that at the latter site he has no attendants while at Jogeśwarī he is accompanied by ascetic figures probably two of his four disciples, *Kuśika, Gārgya, Maitreya* and *Kauruṣa*. Ths Gharapuri image, on the other hand, though in *dhyānāsana*, is evidently not of ascetic countenance. It is not possible to judge whether it wore armbands, but at least the diadem is visible. Moreover, the figures of *Brahmā, Viṣṇu, Indra, Yama* and others which are visible in this panel, could be in attendance only on *Śiva*. It therefore, suggests that the central figure should be *Śiva* as a *Mahāyogī* and not *Lakulīśa*. This also gains corroboration from the fact that unlike the more common depiction of *Lakulīśa* on door lintels or in niches in the later periods, here the figure is given prominence both of location and size which certainly seems quite unsual for a *Lakulīśa* figure.

But if evidence is required of its *Pāśupata* affiliation it is provided by the *Maheśamūrti* itself, an aspect that deserves scrutiny. Not only is the *Pāśupata* philosophy known as the *Pañchārthica* philosophy, but its *Sūtras* are divided into five sections each dealing with one of the *Pañcha-mukha* representations viz. *Sadyojāta, Tatpuruṣa, Vāmadeva, Īśāna* and *Aghora*.[20] The Cintra *praśasti*, a thirteenth century inscription from Somnath giving a detailed record of this sect, refers to this form as the *Śrī kaṇṭha Pañcha-mukha*.[21] The *Maheśamūrti* at Gharapuri is evidently this form which has also been described in the *Viṣṇudharmottara Purāṇa*, as convincingly explained by Stella Kramrisch.[22]

Can this *Pāśupata* feature of Gharapuri form a pertinent basis to determine its patronage ? The issue needs reinvestigation.

At this point we may draw attention to the remarks of D.R. Bhandarkar, regarding the early *Śaiva* systems.[23] *Pāśupata* is the only *Śaiva* system mentioned in the *Mahābhārata* as one of the five philosophical systems. The *Purāṇas* also refer to this yogic practice of *Śiva* worshippers. Huen-tsang refers only to the *Po-shu-po-to* as the worshippers of *Śiva*. Even *Varāhamihira*, in the context of installation of images, mentions in the *Bṛhatgaṁhitā*[24] that a *Śiva* image should be installed by a *Pāśupata* just as a *Sūrya* image should be installed by a *Maga* and a *Jīna* image by a *Digaṁbara* Jain. His observations can be judged from the fact that till the fifth century we do not have any *Śvetāmbara* images and those that are available are all nude. In the *Śaiva* context it would mean that during the early periods, a *Śaiva* shrine was essentially of the *Pāśupata* sect irrespective of who the donor was. This is also borne out by archaeological and other literary records examined by J.N. Banerjea.[25] The Mathura stone inscription of the period of Chandragupta II concerning two *mukha-liṅgas* donated by Ārya Uditāchāryya is an interesting record of the *Lakulīśa Pāśupata* system.[26] Banerjea's contention that the literary data of the late Gupta and the post-Gupta periods establishes the wide prevalence of this cult supports the theory that almost till the seventh century the *Śaiva* cult in existence was the *Pāśupata* cult. Almost all the kings who were devotees of *Śiva*, including the Kalachurīs, call themselves *Paramamāheśwaras*.

The two subsisting arguments about the date and more particularly the patronage of Gharapuri will have to be examined in the light of these observations. These are :

A. *c.* end of the sixth cent., Patrons : Konkan Mauryas;
B. *c.* mid sixth cent., Patrons : Kalachurīs.

The Gharapuri cave has close affinity to the architectural form that had developed in the latter half of the sixth century. Its closest parallel are the Dhumar Lena and the Rameswara (caves 29 and 21) at Ellora which draw heavily upon the plan and iconography of Gharapuri. These caves in turn are conceptually related to caves 1 and 2 at Badami which are earlier than its cave 3, completed in A.D. 578. Thus if we accept a date between *c.* 550 and 560 for Badami caves 1 and 2, it means that a date in the first half of the sixth century for Gharapuri seems a logical conclusion.

The question remains—Who was ruling Aparānta at that time ?

The theory of Mauryan patronage is based on the Aihole inscription of A.D. 634 in which Pulakesin II mentions having wiped out "the rising wavelets" of the Mauryas after beseiging Puri the fortune of the Western sea.[27] Puri, which is generally interpreted as Gharapuri, thus must have been in existence since the sixth century and the shrine thus may have been an outcome of Mauryan patronage.

On the other hand, the theory of Kalachurī patronage has risen out of the reading of the Abhona plates of Śaṅkaragaṇa, son of Kṛṣṇarāja, who refers to his father as a devotee of *Paśupati*[28]. Most recently, the copper coins found in large numbers on the island of Gharapuri are presumed to have been minted to pay off the labourers employed on the project.[29] The inevitable inference is that Kṛṣṇarāja was the patron of Gharapuri[30].

Till the recent discovery of two copper plates at Matwan[31] in the Ratnagiri Dist. Maharashtra, the last known record about the Traikūṭak reign was the Kanheri copper plates of A.D. 494, mentioning the "augmenting rule of the *Traikūṭakas*".[32] The recently discovered Matwan plates of Madhyamasena,[33] evidently a successor of the last known *Traikūṭaka* king *Vyāghrasena*, dated in A.D. 504 establishes that the *Traikūṭakas* continued as the overlords of Aparānta ruling from their capital Aniruddhapura. The second Matwan plate is issued by one Vikramasena in the year A.D. 533 from the same city.[34] However, instead of referring to it as the city of the *Traikūṭakas*. as in the previous grant, it is referred to as the city of the Kalachurīs. It has therefore, been contended that sometime between A.D. 504 and 533 the Kalachurīs defeated the *Traikūṭakas*[35] and replaced them by their vassals, the Mauryas.

Is the evidence enough to establish the theory of Kalachurī supremacy in Aparānta ? The reading of the second plate, of Vikramasena needs a careful scrutiny. As noticed by Shobhana Gokhale, the reading of the first eight lines of both the plates is identical. The only discrepency is in the first line. In Madhyamasena's grant Aniruddhapura is referred to as the victorious city of the Traikūṭakas while in the grant of Vikramasena it is referred to as the city of the Kalachurīs. Vikramasena, like his predecessors was ruling from his capital at Aniruddhapura. It is rather strange that instead of making a mention about the Kalachurī overlordship. the scribe should mention Aniruddhapura as the victorious (capital ?) city of the Kalachurīs and still honour Vikramasena witb full regal title "*Śrī Śrī Mahārāj*". It is difficult to believe that a king just defeated would still continue to have his *birudas* and also make a grant in the same year, if as argued by Shobhana Gokhale we accept that Vikramasena was defeated in A.D. 533, the year of the grant. The title *Mahāsāmanta* would have seemed more logical in such a situation. Moreover, unlike the earlier grant of Madhyamasena or the Surat grant (of A.D. 490) of his predecessor Vyāghrasena,[36] the script of the second Matwan plate, of Vikramasena (A.D. 533), is akin to Śaṅkaragaṇa's Abhona plates of A.D. 597. The doubt that the second grant was copied on copper at a later date stands scrutiny.

Mirashi assigns Śaṅkaragaṇa's reign to *c.* 575-600 A.D. on the basis of Mangalesas Mahākuṭa pillar inscription of A.D. 602, where the mentions having defeated Buddharāja, Śaṅkaragaṇa's son.[37] His father Kṛṣṇarāja has thus been assigned reign between *c.* A.D. 550-575[38]. Kṛṣṇarāja's unknown father is now credited with this implied victory over the *Traikūṭakas* in A.D. 533.[39] It is on this foundation that Walter Spink has based his hypothesis that this unknown father of Kṛṣṇarāja was responsible for undertaking excavations at the cave temples of Jogeśwarī and Maṇḍapeśwar.[40] If we are to credit this unknown personality not merely with constructing temples but for extending the glory of the Kalachurīs to such a far off place as Bombay, so far away from his capital Mahiṣmatī (modern Maheshwar) in Madhya Pradesh, then Śaṅkaragaṇa's silence about the name of his illustrious grandfather in his Abhona grant is enigmatic. The reference to Kṛṣṇarāja in this inscription as of illustrious lineage is essentially a bardic eulogy and need not be taken seriously. On the other hand if any cognizance is to be taken, it may be of the statement that he "revived" the prosperity of his family. It clearly implies that Kṛṣṇarāja did not inherit an established kingdom. It also seems illogical that the vassals (if one so considers them) of the Kalachurīs viz. Saṅgama Siṁha[41] and Vikramasena should call themselves *Mahārāj* while the title is conspicuously absent in respect of their supposed overlords, Kṛṣṇarāja and Śaṅkaragaṇa.

We have earlier discussed the thin edge on which rests the argument about the Kalachurīs being the patrons of Gharapuri merely because they were devotees of *Paśupati*. Even the political situation is not as certain as we are asked to believe on the evidence of Matwan plates of Vikramasena.

Instead of the Kalachurīs, the argument in favour of the Konkan Mauryas has more credibility. It is not without reason that Pulakesin II in his Aihole inscription refers to them as being defeated once by his father, Kīrttivarman, and again by himself.[42] Even though as a conqueror he chooses to underscore their strength as "wavelets" he does acknowledge them as a "rising" power. Unlike Mangolesa's eulogy

of his brother's valour, Pulakesin seems more practically oriented towards his fathers achievements and refers to Kīrttivarman's conquests of the Nalas, Mauryas and the Kadambas which seems more resonable. The defeat of the Mauryas could have taken place sometime between *c.* A.D. 570-590. Conversely it suggests that the Mauryas must have been in power at least a quarter of a century before this event, *i.e.* around the second quarter of the sixth century. If Pulakesin's reference to Puri has to be accepted as suggesting Gharapuri, then his reference to it as a city of the Mauryas is certainly not arbitrary. Even though Suketuvarman's inscription has not been read, its find spot at Vada in the Thana District is suggestive of the area where the Mauryas must have held sway.

There is no direct evidence on either side to decide the matter and if circumstantial evidence is to be accepted then it weighs in favour of the Konkan Mauryas than the Kalachurīs.

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XLI

Vaisravana in North-West India

DEBORAH KLIMBURG-SALTER

A new iconographic type of Vaisravana image emerges in the seventh century A.D. in the art of the contiguous cultural zone of historical northwest India, an area stretching from eastern Afghanistan to Kashmir and including Gandhara. An earlier type can be referred to as a Pharo-Vaisravana image and is found in Gandhara from the Kushan period. The iconographic attributes of this type developed in part from Iranian sources. The new type can be identified first in Swat and the Hindu Kush in the seventh century and is considered to have derived from the Kushan royal portrait[1]. The royal "Kushan type" of Vaisravana image is found also in Khotan in Central Asia in the ninth to tenth centuries A.D. Khotan may also have been the place of origin of the fully developed form of the Japanese image of Vaisravana, which is called Tobatsu Bishamon-ten[2]. Both types of Vaisravana images have their source in the Pharo-Pancika-Kuvera-Vaisravana of the Kushan realm.[3] The distinguishing characteristics of the royal "Kushan type" of Vaisravana image may be understood in terms of a cult of deified royalty.[4] In contrast, the Pancika-Pharo-Vaisravana image is related to the worship associated with the benevolent powers of other yaksas who belong to this class of deity, such as Kuvera and Jambhala[5].

Vaisravana is the guardian king of the northern quadrant and is one of the four guardian kings of the Buddhist iconography. The guardian figure, relatable to earlier images of male yaksas, is among the earliest identifiable themes in Buddhist art. The function of this image varied. A consistent iconographic system of guardian figures did not emerge until Tantric Buddhist art. Guardian deities are "essential elements of tantrism"[6], their forms and functions multiplying in later Vajrayana Buddhist art. Likewise, the cult of Vaisravana in Khotan emerges at the time of the development of Tantric Buddhist practices.

Literary evidence derived from the travel account of the Chinese pilgrim, Hsuan Tsang, written in the early seventh century A.D. suggests a Vaisravana cult in eastern Afghanistan; the visual evidence derives from two previously unidentified Vaisravana images from the Hindu Kush and Swat, as well as from a comparison of these images to Vaisravana images from Khotan from the ninth to tenth centuries A.D. The proposed origin of the worship of Vaisravana, by the seventh century A.D., in northwest India is further supported by the Japanese name for this divinity, Bishamon-ten, which some scholars believe is a Japanese transcription of the name Turkestan which is north[7] and south of the Oxus River and here apparently also refers to Khotan.

Hsuan Tsang relates that a statue of a divine king, identifiable as Vaisravana, guarded the monastery called the Navasangharama at Balkh and the treasure within. This monastery was the particular habitat of Buddhist scholars from Turkestan. According to Hsuan Tsang's story, Vaisravana would seem to have an ideological association with Kuvera, the god of wealth. Also, at Kapisa, a guardian deity relatable to Vaisravana was found guarding a buried treasure in the monastery which was said to have been built for Kaniska's hostages who came from west of the Yellow River.[8]

The function of Vaisravana at Balkh and Kapisa is related also to the earlier representations of Pancika, the general of Vaisravana's armies, found in northwest India—such as the Takal, Mardan and

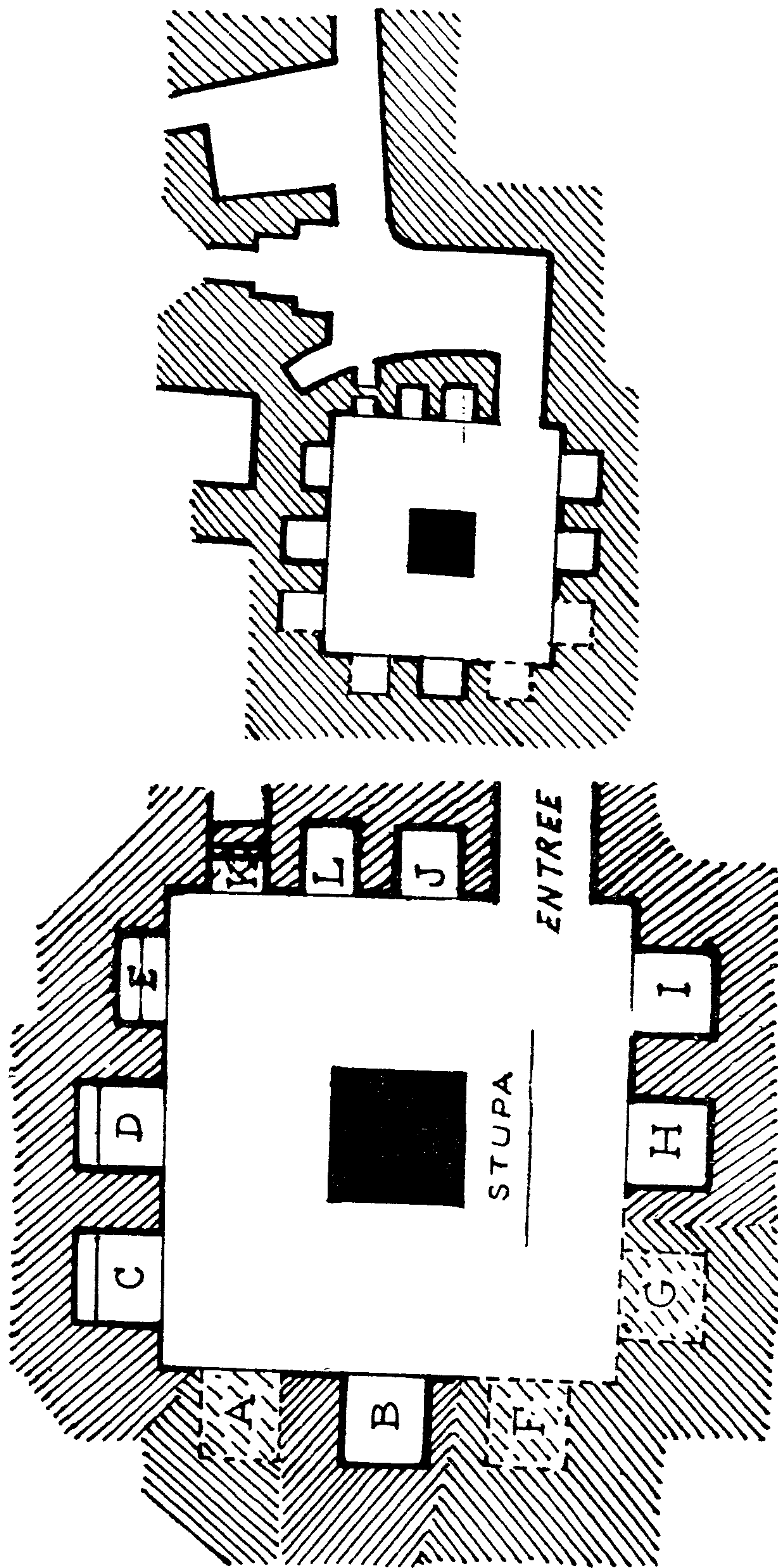


Fig. 36. Fondukistan – Plan (after Hackin, J , *etal*, *Diverses Recherches Archaeologiques en Afghanistan* (1933-40), *Memoires de la Delegation Archaeologique Francaise en Afghanistan*, Vol. VIII, Fig. 1.

Jamalgarhi figures. According to the *Mahamayuri*[9], Pancika was the tutelary deity of Kashmir and Vaisravana was the guardian of the Tukharas.

Hsuan Tsang's account also suggests that the contemporary worship of Vaisravana in Khotan, which has been identified by Dr. Granoff,[10] was originally imported from the area of northwest India. Kashmir, Kapisa and Gandhara were sometimes nominally governed by a single ruling house but with semi-independent local kings. According to Hsuan Tsang, Kapisa had again gained control of Gandhara some years prior to the Chinese pilgrim's visit, ca. A.D. 630.[11] There are numerous indications of an early association between Khotan and north-west India. In regards to the connections between Kashmir, Gandhara, and Khotan, Hsuan Tsang specifically identifies: (1) a *sangharama* built in Khotan in honour of Vairocana Arhat from Kashmir, (2) a crowned, seated Buddha image, seven feet tall, originally from Kashmir, which was erected at Bhagai by a Khotanese king, who also maintained an alliance with Kashmir and (3) the importation of Vaisravana worship from Gandhara.

A summary of Vaisravana worship in Khotan, as presented by Hsuan Tsang[12] is : (1) first the Deva Pi-Shi-men (Vaisravana) settled in Khotan, (2) a tribe from Gandhara also settled in Khotan, establishing their chief as king, (3) this king was subsequently defeated by a king from China[13], (4) a descendant of the Chinese king "miraculously" appeared from the head of Vaisravana and as a result of this incident a temple to Vaisravana "in honour of his ancestors" was erected[14], and (5) subsequently, the Khotanese kings consider themselves *deva-putra*, and descendants of Vaisravana.

Hsuan Tsang's account indicates the following stages :

(1) Vaisravana worship and an unidentified ruler from north-west India were established in Khotan before the foundation of the Khotanese dynasty, (2) a king from China conquered this Indian ruler and assumed the local custom of Vaisravana worship, which became incorporated into the legendary origin of the dynasty which the Chinese king founded, (3) the temple erected to Vaisravana by the first king (after the Chinese conquest) of the Khotanese dynasty was also a shrine for dynastic worship. Granoff, in her study, established that the symbolism of Vaisravana can be "understood in terms of a cult of deified royalty"[15]. Her convincing stylistic comparisons include the deity painted on the vault of the 38 meter Buddha niche at Bamiyan.

In addition to the literary evidence for images of Vaisravana in northwestern India in the seventh century, there are two figural representations at Fondukistan and on a Swat stupa. These images of Vaisravana relate to the image as has been defined in Central Asia, the latter dating as late as the ninth to the tenth centuries. The comparatively late development of the Central Asian examples may account for their (codified) iconography, which is more complete than that found in northwest India. The Central Asian type has been discussed by Granoff, who suggests that "Khotan may have been the place of origin of the fully-developed form of Tobatsu-Bishamon-ten"[16]. She then demonstrates the origin of the Khotanese type in the Pharo-Pancika-Kuvera-Vaisravana of the Kushan realm.

Our first example comes from the now-lost painting (Pl. XCV a) from Niche "K" in the monastery at Fondukistan in the Hindu Kush, 128 km. east of Bamiyan, the political and religious center of the Hindu Kush region (Fig. 36). All the paintings from Fondukistan have recently been assigned to the first half of the eighth eentury[17].

Niche "K" was originally one of two entrances to the center room of the monastery but was later walled-in to form a shallow niche. Representations of two male figures in Central Asian tunic and armor were found on the right side wall. All that remains of these two male figures is the water color copy made at the time of discovery by Carl (Pl. XCV a). Hackin identified these figures as lunar and solar deities. The identification appears to be based on two features : (1) two long thin crescents springing from the shoulders and following the nimbus of the figure Hackin called a "moon god", (2) the red nimbus which suggested the identification of the "sun god".[18] These attributions and the interpretations applied to them are questionable due to the absence of supporting iconographic details in the damaged paintings. Also, no depiction exists elsewhere of these deities appearing together which would compare with the Fondukistan figures. Representations of lunar and solar deities at Bamiyan are quite consistent, yet differ significantly from those just described. At Bamiyan

the lunar and solar deities are consistently represented as pairs of discs each containing the deity driving a chariot.[19]

Several distinctive motifs in the Fondukistan painting are also found in the art of Bamiyan : (1) the red halo is employed for Buddhas in Cave N and others at Bamiyan as an apparently purely decorative device, (2) shoulder crescents, though much smaller, adorn the jewelled Buddha images painted in the 38 meter Buddha niche, (3) the garments and ear rings of the "moon god" are typologically quite similar to those found at Bamiyan on donor figures, (4) the tiger skin boots are worn by a donor figure in the niche of the 38 meter Buddha; other animal skin boots, but with open toes, are worn by the deity in the south medallion, east wall, of the 53 meter Buddha.

I would like to suggest that the figure with the shoulder crescents, the "moon god" is the guardian king Vaisravana and that the other figure might be his attendant general, Pancika. If there were originally a companion pair of male figures, then this group could accordingly be identified as Vaisravana and the three other guardian kings. This identification is suggested by the location of the figures (Fig. 36). In the original plan of the monastery, the figures would have occupied a position on either side of a doorway, which is the traditional location for guardian deities.

The crescents represented on the so-called "moon god", or rather Vaisravana, can be identified as light symbolism by analogy to the numerous examples of Vaisravana figures from Central Asia who have shoulder flames depicted as crescents (Figs. 37-38)[20]. Since this feature does not appear on most Japanese examples of this deity, it does not seem to a necessary iconographic attribute. Its presence here seems consistent with the importance of light symbolismin the art of eastern Afghanistan, particularly at Kapisa and Bamiyan. While actual flames springing from the shoulders is the most common idiom, light symbolism is also indicated by shoulder crescents. This crescent type of light symbolism appears for instance, on the crowned Buddhas painted in the niche of the 38 meter Buddha at Bamiyan (Pl. XCV b). An earlier example of the same motif is found on a Kushan coin, where Huvishka has two long crescents springing conspicuously from his shoulders.

The identification of the second figure in the painting, the so-called "sun god" as *Pancika* is more hypothetical. It is clear that the mail armor (Pl. XCV a) and the tall, soft boots worn by the Fondukistan figure are very similar to those depicted on the Central Asian and Japanese lokapalas identified and reproduced by Granoff. The armor worn by a figure identified as Skanda from Kafir Kot, now in the British Museum,[21] may be considered an earlier example of this type. These iconographic features suggest that the so-called "sun god" represents a warrior or guardian figure. The proximity to Vaisravana indicates the identification of Pancika, the Yaksa general of the Guardian King's armies, or Sanjaya, who is the eldest son of Kuvera[22], or a combination of both. "Sanjaya is said to a former name for Pancika, brother of the lokapala and one of the eight yaksa generals"[23]. The addition of the fly whisk is puzzling. In a Buddhist composition it is usually carried by an attendant of either the Buddha[24] or of a royal personage.

The figure of a guardian on a reliquary stupa from the Ghorband Valley in Swat, now in the Peshawar Museum, can also be identified as Vaisravana (Pl. XCVI a and b). The guardian figure wears Central Asian tunic, tall soft boots, and a crown, has distinct shoulder flames, and carries a lance in his right hand. These iconographic features coincide with those of the Central Asian images identified by Granoff as Vaisravana. These features combined with the location of the figure which is repeated four times and thus guards each of the directions and the four Buddhas seated below him, allow for his identification as Vaisravana.

The flame-like shoulder projection are similar to those on painted Buddhas at Bamiyan and sculptures of the Buddha from Kapisa. A comparison of the Swat figure to some numismatic portraits of the Kushan kings, Kanishka, Huvishka and Vima (Pl. XCVIII a) indicated that this Kushan royal image may have been the source of the Swat representation of Vaisravana.[25] Both Vaisravana and the Kushan kings are represented in a frontal splay-footed stance. In addition to the Central Asian tunic with triangular silhouette, cape, lance, belt with sword and crown, both figures also have flaming shoulders. Shoulder flames, found in eastern Afghanistan only on representations of the Buddha and



Fig. 37. Vaisravana—Central Asia.



Fig. 38. Tobatsu Bishamon—ten, in a Daigoji–2420 shu manuscript. *Kamakura* period (Copy after a 9th century original from Granoff).

the Kushan kings, point out that the latter were given divine status. The formal and iconographic similarity between the numismatic images of Kanishka and the Swat Vaisravana figure may indicate that in northwest India, as in Khotan, there was an association between the cult of a deified king and of Vaisravana.

There are certain features of these two proposed examples of Vaisravana—from the Fondukistan painting (Fig. 38) and the bronze Swat stupa (Pl. XCVI a-b) which do not coincide with Central Asian representations of Vaisravana. The Central Asian images often have armour and the additional attributes of the earth goddess Prithvi and the miniature stupa. All are absent from the northwest Indian examples. The stupa may have been a later iconographic addition and more characteristic of the eastern regions.[26] The types of crown and jewellery, particularly the triple crescent crown found in the painting[27], are also regional variations, being typical of the art of the Hindu Kush. Likewise the persistance of the Central Asian tunic, known from the Kushan images from Surk Kotal and their coins may be a regional tradition.

The relationship between the art of the Hindu Kush, Swat, and Kashmir has long been recognized. A particular similarity can be noted between the art of Fondukistan and Kashmir, specifically from Ushkur, not only with regard to technique and style of the sculptures, but also to the idiosyncratic iconographic motifs.[28] Although there may have been, at times, some political association between the two regions, a cultural connection can be attributed to the fact that the two sites belonged to the chain of settlements on the east-west trade route of the western Himalayas. In fact, one of the routes which passed from Bamiyan to Kashmir and hence to Khotan also passed through the Ghorband Valley in Swat[29].

Granoff demonstrated, on iconographic grounds, that the Khotanese type of Vaisravana can be considered to have developed from the Kushan royal portrait. It would seem, however, that this variant of the Vaisravana image can be considered a specifically northwest-Indian interpretation and distinct from an earlier variant with partially Iranian origin, a Pharo-Vaisravana image. The iconographic differences between these two types of Vaisravana images are small but consistent. The two Vaisravana examples from Fondukistan and Swat (both from valleys named Ghorband) both wear a Central Asian style tunic with "A" shape which falls to the knees, over long boots, have belts with metal or jewelled additives and flames from the shoulders. In both cases the personages carry a weapon in their right hand, the attribute in the left hand is destroyed in the painting but the Swat image has a sword. It should be noted that the two images cited by Granoff which most closely coincide with these examples[30] carry a stupa. The other Vaisravana images she discusses wear Central Asian armour[31] of the type worn by the so-called "sun god" in the Fondukistan painting (Fig. 38).

A parallel, but distinct, tradition for the Pharo-Vaisravana type can be identified at Bamiyan, the religious and political center of the region. In the niche of the 53 meter Buddha, on the east side, are painted a series of much-ruined and scarcely known rondels. Compositionally, they are like the well known rondels on the west side (Pl. XCVII a) which contain images of flying divinities carrying offerings for the Buddha. On the east side (Pl. XCVII b) each of the rondels also contains three flying figures which have a distinctive iconography. The only rondel which is complete enough to allow for an identification of the figures appears to have a Pharo type image at the center. The two figures behind him are very damaged; the one to the left is not legible but looks as if it may be a female attendent. To the right is a figure who wears the bodhisattva dress characteristic of Bamiyan, except that he also carries a trident and thus can be compared to the Pancika represented with Hariti from Shah-ji-ki Dheri in the Peshwar Museum. The central figure in the Bamiyan rondel is strikingly similar to the Pharo with Ardoxso from Sahri Bahlol also in the Peshawar Museum (Pl. XCVIII b). Both male figures wear a garment with a full, loose skirt tied by a soft belt. The garment has a round neck and a cape which is clasped on one side of the chest. They both wear sandals which come to just below the knee and they both carry a money purse. The head dress of the Bamiyan Pharo is destroyed. The Pharo-type image from the Gai Collection, Peshawar[33], also would seem to conform to this tradition except that the male figure does not hold a money bag. These Pharo type images differ from the two Ghorband and Central Asian

Vaisravana images in that the latter group is characterized by tunic with lapels, high felt boots, shoulder flames and the absence of the money bag. The Bamiyan and Fondukistan images wear distinctive animal skin sandles. These are found elsewhere on donor figures at Bamiyan and may be a local fashion in the Hindu Kush.

Why did this distinctive type of Vaisravana image emerge after the sixth century A.D. ? What was the ideological content of the figure ? The Pharo-Vaisravana type occurred earlier with the Bamiyan figure being the latest of our examples. Also, the Pharo-Vaisravana type is not necessarily associated with divine kingship, although the winged cap is an attribute of kingly glory. Further, both the winged cap and the costume details derived from western sources. In contrast the royal Kushan Vaisravana type wears a form of military dress specifically associated with Central Asian peoples. Like the Kushan kings, this type of Vaisravana figure has a sign of supernatural power, flaming shoulders, which is specifically associated with divine kingship. We know, in fact, that shoulder flames were an important component of the mythology of divine kingship in the Hindu Kush through the first half of the seventh century when Hsuan Tsang recorded, in Kapisa, the legend of Kanishka demonstrating shoulder flames together with other super-human powers[31].

The history of the Vaisravana cult in Khotan offers some useful parallels to the historical and cultural factors in northwest India which may have contributed to the rise of the royal Kushan type of Vaisravana image after the sixth century A.D.

Two cultural components which Granoff identifies as related to the Khotanese type of Vaisravana are also present in north-west India after the sixth century : (1) an historical climate receptive to the idea of sacred kingship, (2) esoteric Buddhist practices.[35] The latter is clearly demonstrated by the bronze stupa from Ghorband where the guardian figure is a component of the vajradhatu mandala, the mandala of the diamond world—an important theme in Tantric Buddhism.

The dynasty which ruled the Kingdom of Bamiyan, its capital being located in the Bamiyan Valley (as identified by Chinese pilgrims in the seventh and eighth centuries), may have been associated with a cult of sacred kingship. We do not have sufficient information to discuss the manner in which this cult was understood by the population, or even the degree of deification attributed to the kings. Inscriptions exist from two sites in Afghanistan, as well as from Khotan, which suggest a tradition of sacred kingship both during the Kushan and Turkic periods. At Shotorak, a Buddhist monastery in Kapisa, Afghanistan, a site established in the Kushan period and occupied through the Turkic period, the title *Bagoshao* is found; deva-putra was used frequently by the Kushans (on coins and in inscriptions) and was used also in Khotan. Other factors also suggest the possibility of a cult of kings at Bamiyan, as at Surkh Kotal the mixing of portraits of rulers with images of deities probably existed in paintings of the 38 meter Buddha niche[30]. Both the Kushan kings and the rulers from Bamiyan are depicted with halos; the latter have no other supernatural attributes, such as flames.

Studies on sacred kingship demonstrate the importance of periodic ceremonies in which the king reaffirms and reinforces his role as the intermediary between gods and men. Hsuan Tsang describes just such a ceremony as being the main preoccupation of the king of Bamiyan [7], who ruled the Hindu Kush region, including Fondukistan during the seventh and eighth centuries A.D.

In spite of insufficient sources we can suggest the possibility that a concept of sacred kingship existed in the Kingdom of Bamiyan parallel to traditional and mainstream Buddhist doctrines and that this concern manifested in ceremonial as well as iconographic form. One possible manifestation of this ideology might have been the rise in popularity of the Vaisravana cult by the seventh century A.D. Although the history of the period is still little understood, we do know that the Shahi Turks[33] were the dominant power in the entire area at that time. Further, the Vaisravana cult appears at a time when political and religious imagery are combined into new iconographic forms, the most striking example is the "jewelled Buddha image"[39]. It is possible that the type of Vaisravana image which developed in the mountainous regions of northwest India after the sixth century—combining the political iconography of the Kushan kings with the religious function of the guardian kings of the north, is another symptom of the merging of the sacred and secular institutions indicated in both literature and art.

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The research here was made possible through the work of the Archaeological Survey of India, then under the direction of Sri M.N. Deshpande. Without their efforts, many of the paintings, such as the one from Bamiyan, 53 meter Buddha niche (Pl. XCVIIa and b), would have remained unknown and would eventually have disappeared. In addition, I owe the entire team my gratitude for their assistance in my work.

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   Granoff notes that the features of the Kushan royal portrait type ressemble parallel features of the Tobatsu Bishamon. The northwest Indian variant of the Vaisravana figure discussed in this paper is even closer to the Kushan portrait type with its long tunic and jewelled belt.
   The fragmentary figure from the Rawak stupa in Khotan "has been identified as Tobatsu by the armor, the rigid stance, and the presence of a small female figure at the base of the god" (p. 160). While this would be the earliest pictorial representation of Tobatsu Bishamon and therefore functionally related to Vaisravana in India, the iconographic elements are different from the Kushan royal Vaisravana type. Although this variant too might have existed earlier the only remaining evidence for it dates from the 7th and 8th centuries A.D.
2. Granoff, *East and West*, p. 167.
3. *Ibid.*
4. *Ibid.*, p. 145, 164.
5. Rosenfield, J., *Dynastic Art of the Kushans*, Berkeley, 1967, p. 248. Pages 245-259 contain valuable insights on this type of cult figure.
6. Lauf, D., *Tibetan Sacred Art*, Shambala Press, 1976, Boulder Co., p. 169.
7. Granoff, *East and West*, p. 144, citing R.A. Stein, Recherches sur l'epopee et le Bard au Tibet, Paris, 1959, p. 283.
8. Hsuan Tsang, *Si-yu-ki*, translated by S. Beals as *Buddhist Books of the Western World*, 2 vols. New York, 1968, Book I, p. 56-59. The deity at Balkh is called Vaisravana by Hsuan Tsang, p. 45. At Kapisa the deity is called The Great Pirit King but the context of Hsuan Tsang's story, p. 59 as well as Granoff's study, *op.cit.*, suggest that this figure can also be identified at Vaisravana.
9. Levi, S., "Le Catalogue de yaksas dans la *Mahamayuri*", in Journal Asiatique, 1915, verses 78, 85-86, J.S. cited in Rosenfield, *Dynastic Art*, p. 246, 315.
10. Granoff, *East and West*, p. 167.
11. *Si-yu ki*, p. 98. I have demonstrated elsewhere that in the pre-Islamic period this area was considered a single cultural zone; Klimburg-Salter, "A note on the Formation of Tantric Buddhist Iconography", In *Buddhistiche Kunst und Kultur Ostasiens*, Cologne, to appear.
12. *Si-yu-ki*, p. 309-311.
13. See Granoff, *op.cit.*, p. 160 ff. for other details concerning this king.
14. *Si-yu-ki*, Book XII, p. 311.
15. Granoff, *East and West*, p. 164.
16. *Ibid.*, p. 167.
17. Klimburg-Salter, D., "Buddhist Wall Painting of the Hindu Kush" *Bamiyan, Fondukistan, Foladi, and Karrak.* Unpublished Ph.D., dissertation, Harvard University, 1975, p. 187.
18. Hackin, J., et al., *Diverse Recherches Archaeologiques Francaises en Afghanistan*, Vol. 8, Paris, 1959, p. 58.
19. Representations of the sun and moon are found at Bamiyan in caves J (Plate 65), M (Plate 59) and T. Kotera, K. Maeda & Amiaji Bamiyan Report of Survey in 1969 (Japanese) Nagoya, 1971.
20. Granoff, *East and West*, 1970, figure 9.
21. *Ibid* . Figure 10.
22. Williams, J., *East and West*, n.s. Vol. XXIII, March-June, 1973, p. 136-138, for identification of this figure at Khotan.
23. *Ibid.*, p. 138.
24. Saunders, E.D., *Mudra*, London, 1969, p. 153.
25. Rosenfield. *Dynastic Art*, Plate IX.
26. Granoff, *East and West*, Plates 4-9.
27. Klimburg-Salter, D., *Buddhist Painting*, p. 225-227.

28. An unusual sculpture survives from both Fondukistan and Ushkur in the Kabul and Srinagar Museums respectively. Both figures, male, remain only from chest to knees and are nude except for a bead-trimmed jacket ending about the navel. Kak, R.C., *Handbook of the Sri. Pratap Singh Museum, Srinagar*, 1923, p. 24.
29. Sir A. Stein, *An Archaeological Tour in Upper Swat and Adjacent Hill Tracts*, no. 42, of the Archaeological Survey of India, Calcutta, 1930, p. 74, passim.
30. Granoff, *op.cit.*, figures 23, 24. These examples wear a long tunic with lapels apparently of mail, there are no comparable costumes in India.
31. *Ibid.*, figures 17, 18, 20, 21, 22.
32. *Ibid.*, figure 27.
33. *Ibid.*, figure 26.
34. *Si-yu-ki*, Book I, p. 65. My suggestion here is that the winged cap which Rosenfield and Granoff (*op.cit.*) derive from the Iranian Khavarna is not necessarily an attribute of divine kingship. This may be too specific an interpretation for such a fluid concept.
35. Klimburg-Salter, D., *Buddhist Painting*, p. 197-199.
36. *Ibid.*, p. 57-58.
37. Klimburg-Salter, D.E., *Buddhist Art and Culture of the Hindu Kush*, to be published by Shambala Press (Boulder, Ca.), Chapter I.
38. *Ibid.*, Chapter VI.
39. *Ibid.*, Chapter X.

XLII

Harihara in Cambodian Inscriptions and Hieratic Art

M.A. Dhaky

BACKGROUND

Cambodia or Kampuchea (Kambuja or Kamujadeśa of the ancient Cambodian Sanskrit inscriptions) had in past received its major and many, if not all, of the basic cultural elements—religions and rituals, philosophy, Sanskrit language and literature and the civic and theistic arts and architecture—from India of the earlier half of the first millenium. Over a couple of centuries before the reinstatement of the Kauṇḍinya dynasty in Nagara (*mod.* Angkor), Cambodia was split into two major political divisions, namely Northern or Kambuja proper and Southern whose Sanskrit name is not clearly known but the Chinese at first called it Fu-nan or Fou-nan. a rendering probably of a Khmer appelation "Ba Phnom" for region around the hill of that name in Southern Cambodia.

A part of Kambuja (Northern Cambodia) was ruled by Śrutavarmā and his son Śreṣṭhavarmā who apparently founded the town of Śreṣṭhapura in the fifth-sixth century A.D. The so-called Fu-nan division was ruled by the dynasty of Kauṇḍinya, the first firmly historical king of which was Jayavarma (late 5th, early 6th cent. A.D.) whose son Guṇavarma (probably by his queen Kulaprabhāvatī) is supposed to have been done away with by his step-brother Rudravarmā, a child of a concubine, the latter prince then ruling Southern Cambodia from about the middle of the sixth century A.D. Vyādhapura (*mod.* Angkor Borei) was the capital-town, while Kuruṁbanagara seeming was another important town inside the domain of this Kauṇḍinya dynasty in the sixth century. Rudravarmā's reign, and with him the dynasty, seems to have been ended sometime after A.D. 539.

The dynasty of Śrutavarmā was succeeded by that of Bhāvavarman I, the founder of Bhāvapura, who is assumed to be related to the dynasties both of Śreṣṭhapura and Vyādhapura. His brother and successor Citrasena *alias* Mahendravarmā and more definitely the latter's son Īśānavarmā extended the power of Kambuja over Fu-nan, from which time, on perhaps the appelation Kambuja began to be applied to the total country of the present day Cambodia and the adjacent segments of Thailand, Laos and Vietnam. Īśānavarmā (first half of the 7th cent. A.D.) founded the city of Īśānapura (Sambor Prie Kuk) which today preserves, in ruinous condition though, some of the oldest extant monuments of Cambodia. The last king of the dynasty was Jayavarmā I (*c.* A.D. 657-681) after whom there is a dark period in which one other Jayavarmā figures in A.D. 781. The fortunes of the dynasty were regained by a third Jayavarmā, known to the historians as Jayavarmā II, who ascended the throne of Cambodia in A.D. 802 after returning from his exile in Jāvā. After him, among the more important kings were, for our purpose, Jayavarmā III (A.D. 854-877), Indravarmā (A.D. 877-889), the illustrious Yaśovarmā (A.D. 889-900)—the founder of Yaśodharapura (which included Angkor Thom)—Rājendravarmā (A.D. 944-969).

As in India, the religious foundations in Kambuja were mostly authored by the kings and royal personages, high officials and dignitaries and priests and pontiffs of the superior ranks.

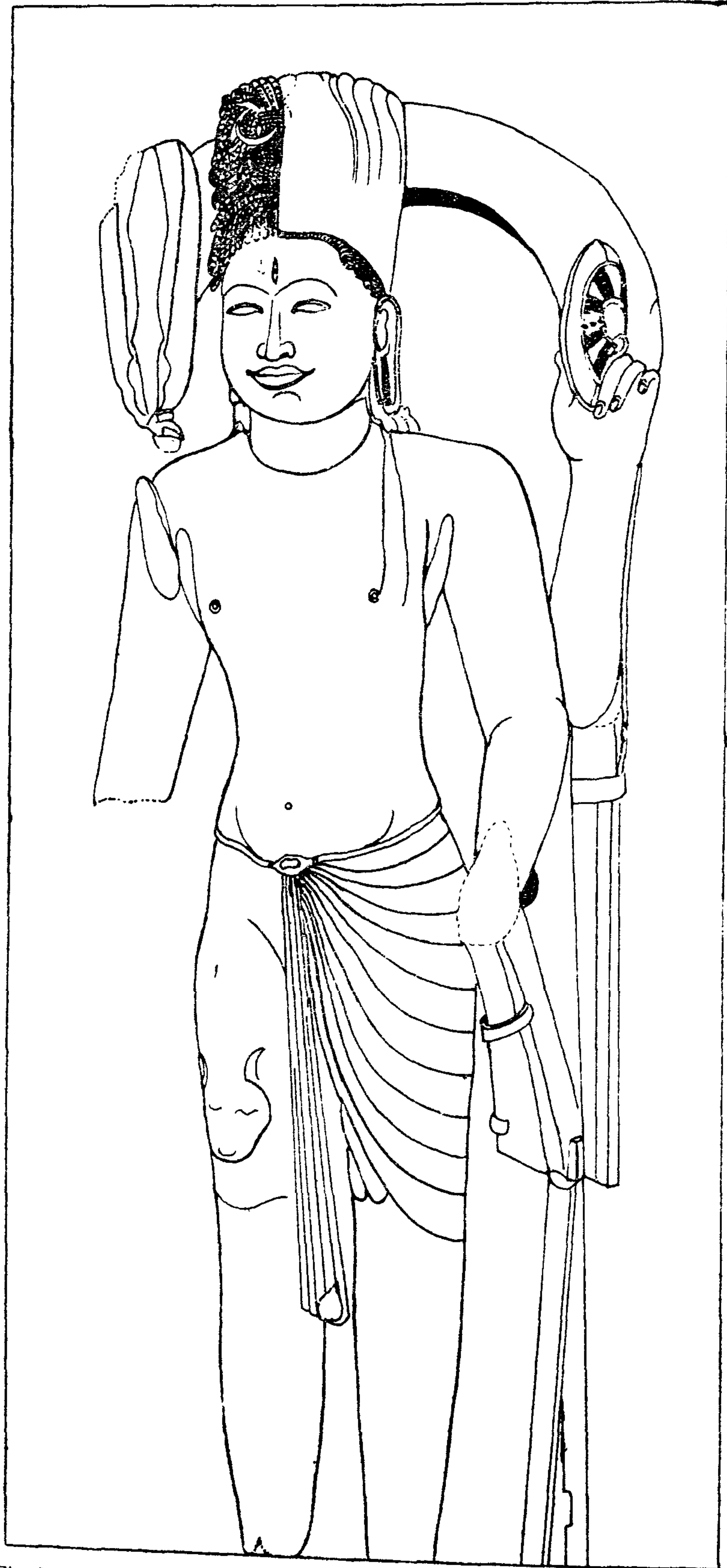


Fig. 39. Harihara, Āśrama Maharṣi (*Cam.* Ashram Maharosei), Phnom Da style, *c.* latter half of the 6th cent. A.D. Kāmbujadeśa (Kampuchea Cambodia). (After Donatella Mazzeo and Chiara Silvi Antonini).

HARIHARA IN INSCRIPTIONS

In the Brāhmanical (and for that matter even Buddhist) pantheon in Kambujadeśa, not many, nor iconographically advanced and varied forms and representations of divinities are traceable in Cambodia. Among the deities, the mainly met with are *Śiva* (also called *Bhava, Hara, Śaṁbhu, Śaṅkara, Īśa, Īśāna, Īśvara* and *Parameśvara* in the inscriptions) who was represented not only in aniconic (*liṅga*) but also in iconic form; *Viṣṇu* (*Acyuta, Sanrgi*)—standing or in (*Anantaśayana* form—*Kṛṣṇa, Kṛṣṇa-Govardhana, Balarāma, Skanda, Gaurī* (*Umā*), *Durgā, Bhagavati* (*Caturbhujā*), *Gaṇeśa* (*Gaṇapati, Vināyaka*), *Brahmā, Sūrya* and of course *HariHara,* the latter variously referred to in the inscriptions as *Śambhu-Viṣṇu, Śaṅkara-Acyuta, Har-Acyuta, Parameśvara-Sanrgi,* and *Viṣṇu-Īśa, Hari-Śaṅkara* and *Har-Īśvara*[1].

The worship of *HariHara*—a unified form of *Śiva* and *Viṣṇu*—was fairly popular in Kambujadeśa from at least the later part of the sixth to about the middle of the tenth century. Indeed, one of the towns which Jayavarmā II made his headquarters (*c.* early 9th cent. A.D.) was significantly named "*Hariharālaya*" or "mension of Lord *Harihara*". The purāṇic conceptual formulation of the deity *HariHara* —oneness in essence of the apparent duality reflected as two separate deities—and his iconic representation were thus, in Kambuja, not only familiar; the knowledge, clearly had an antiquity almost contemporaneous with some of the early images found of this composite-deity in India, such as in the Badami Cave I in Karnatadesa, datable to *c.* later part of the 6th cent. A.D.[2] Several early and pre-medieval inscriptions in Kambuja refer to the setting up of the images of (and in a few cases temples to) *HariHara.* The more important inscriptional notices on this point are cited and reviewed below :

1. The first part in Sanskrit of the very fragmentary inscription on the doorframe of one of the two ruined brick temples in ancient Dhvanipura (currently *Khmer* Ponhea Hor) of the time of king Bhāvavarmā I (*c.* late 6th cent. A.D.) records the setting up by a regional officer (*pasenāgapati*) of a *Śivaliṅga* and images of *Durgā, Viṣṇu-Trailokyeśvara* and *Saṁbhu-Viṣṇu*[3], the latter obviously being another way of referring to *HariHara.*

2. According to the Vat Cakret temple inscription of S A.D. 549/627 a vassal chieftain of Īśānavarma, who had his capital at Tāmprapura and also possessed three other towns, namely Cakrāṅkapura, Amoghapura and Bhīmapura, installed an image of *Hari-Śāṅkara*[4] :

(ya) śobhi-kāṅkṣata tena sthā (pi) tāvā bhūva-sthiteh /
sraddhā-pūrvveṇa vidhinā sur=iṣṭau Hari-Śaṅkarau//5//

3. An undated inscription of the time of Īśānavarmā from Ang Pu (Vat Pu) refers to the setting up of an image in unification of the body-halves (*eka-saṁsthā ardhasarīra pratimā*), that is to say a syncrestic image of Sankar=Acyuta[5] :

Śaṅkar=Acyutayo='rdhha-sarīra pratimā=mimāṁ /
eka-saṁsthā-śukrtaye yo guruṇa=matistipat //4//

4. The inscription on the image-pedestal from Vat Prei Var of some Kavalitayamin dated S A.D. 589/668 (of the time of Jayavarmā I) refers to the image as the syncrestic image (*eka-mūrti*) of "*Viṣṇ=vīśa*"[6] :

......Viśṇ=vīśa=av=eka-mūrti Kega (va) litayamina sthapit=av='tra yuktya //1//

5. The Bakong stele inscription of Indravarman dated S A.D. 803/881 refers to the setting up of the image (*pratirūpaka*) of "*Īśāna-saṅrgi*" having "undifferentiated bodies" (*abhinnatanvo*)[7] :

Abhinna-tanvo=r=Īśāna-saṅrginoh pratirūpakam /
kṛtvā tat=sthāpana-vidhau tanayan s=opya-yojayet //3//

6. An inscription from the *HariHara* temple on the Purandara-Parvata (Phnom Dei Hill) of king Yaśovarmā detable to S A.D. 815/893 invokes *Har=Īśvara* and fixes the boundaries of (the temple of) *Har=Acyuta*[8] :

Dvi..... putra-Harau yau ca saṁvṛttau bheda-bhagatau /
Jagat-śaṅkarau vande nitya=n=c=aitau Har=Īśvarau //1//

Śrī-Har=Acyutayos sīmā Śrī-Yaśovarmmana kṛta /
Śrī-Har=Acutayo=r=datta Śrī Purandara-parvvate //2//

and :

7. The inscription dated S A.D. 869/947 of king Rajendravarmā in the temple of Baksei Camkron on Mt. Bakheng near Angkor Thom invokes, among other deities, "*Parmeśvara=Saṅrgi*"[9] :

Siddhinda-dhātu Parameśvara-Saṅrgi-mūrtis-sl...prabhā-parisarena viśeṣayanti //5//

HARIHARA IN IMAGE REPRESENTATIONS

Matching with the inscriptional notices are encountered the actual images, a few even traced at the sites from where the inscriptions have been found. As indicated by the available evidence. HariHara begins to figure in Cambodian Brāhmanical hieratic sculptures from the sixth century, its latter half to be precise. The earliest example is possibly the famous *HariHara* from Āśrama Maharṣi (Khmer Asram Maha Rosei) at Phnom Da (*c.* 6th century, *cf.* here the fig.) which apparently shows some South Indian influence, the half part of crown showing *Viṣṇu's* mitre that recalls that of *Viṣṇu Anantaśāyī* in Mahiṣamardinī cave at Mahābalīpuram in Tamilnadu (Tondainadu style, *c.* A.D. 630-650)[10]; the date, however, of the Cambodian example seemingly is earlier by at least half a century than the Indian parallel. Next in time and importance is the one from Sambor Prei Kuk (*c.* early 7th cent. A.D.)[11] followed by the very famous and incomparable *HariHara* from Prasat Andet[12]. Two examples hail from Trapeang Phong (one of the seventh[13], the other of the eighth[14]) followed by those from Kompong Speu[15], Vat Prasat[16] and the latest one from Bakhong (*c.* 10th cent. A.D.)[17]. (The progressive change and the small variations noticed in details have been expertly discussed elsewhere[18]). What is significant about the HariHara images in Cambodia are the clear allusions to the physical aspect of the syncrecism of the deity and the instance of a large number of earlier examples that could help in the study of the concept and formal iconograms of this divinity.

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6. *Ibid.*, p. 41.
7. *Ibid.*, p. 68.
8. *Ibid*, p. 150.
9. *Ibid.*, p. 186.
10. Pierre Dupont, "La Statuaire Preangkorienne", *Artibus Asiae Supplementum XV*, pls. II and XI(a). Also *cf.* Heinrich Zimmer, *The Art of Indian Asia*, Vol. II, pl. 286 (for Mahābalīpuram *Viṣṇu*).
11. Dupont., *op. cit.*, pls. XXIV and XXV(A).
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13. *Ibid.*, pl. XXXV(A).
14. *Ibid.*, pl. XLII.
15. *Ibid.*, pl. XXXV.
16. *Ibid.*, pl. XL.
17. J. Boisselier, "Le *Harihara* de Bakon", *BEFEO.*, XLVI, pls. XVI, XVII.
18. J. Boissellier, *Le Combodge, Asie der Sud-est Premiere Partie tome I*, Paris, 1966, p. 289.

XLIII

Ravananugrahamurti : A unique Bronze in the National Museum, New Delhi

B.N. SHARMA

Vālmīki, the celebrated author of the *Rāmāyaṇa* has narrated that once *Rāvaṇa*, the mighty king of Laṅkā after defeating *Kubera* was returning to his kingdom in his *Puṣpaka-Vimāna*. When he reached Śaravana, the place where *Skanda* was born, his celestial car suddenly became motionless. On enquiry, he was informed by the monkey-faced *Nandikeśvara* that he cannot proceed further as *Śiva* with his divine consort *Pārvatī* was sporting there and hence, all beings including the *Devas* have been disallowed to cross that way. Hearing this, *Rāvaṇa* laughed thunderously and being well aware of the might of his arms, decided to uproot that mountain from its very base.

After firmly holding the mountain, he started lifting it and as soon as it shook creating terrible noise, everyone residing on it trembled and even *Umā* in fear clasped to the body of *Śiva*. But *Śiva*, the omnipresent, who in no time understood the real cause of it, remained undisturbed and with the toe of his right foot simply pressed the mountain downwards causing much discomfort to the proud *Rāvaṇa*. Then the king on being advised by the counsellors propitiated *Śiva* by praying him for a thousand years. Seeing his devotion, *Śiva* was so pleased with *Rāvaṇa* that he not only freed him to return to Laṅkā, but also gave him a sword named *Chandraśekhara*.[1]

The above epic-story became a favourite subject with the artists and poets alike of the Gupta period and the centuries following it[2]. In almost all the images of the so called '*Rāvaṇānugrahamūrti*', discovered from different parts of India, the demon king of Laṅkā has been invariably shown as exerting himself to uplift the mountain Kailāśa[3]. The sculptures of *Rāvaṇa* of the Gupta period show him as a normal human-being with one head and a single pair of arms[4]. But in the representations of the post-Gupta and later periods, he is always shown as a multi-headed figure having many arms[5].

Another point of interest is that excepting one terracotta figure from Uttar Pradesh[6], in all other representations of the Gupta period, a donkey's head is conspicuous by its absence on the turban of *Rāvaṇa*[7]. But in the mediaeval sculptures from various parts of north India, illustrating the subject—*Rāvaṇa* shaking mount Kailāśa, the same is generally shown on the crown of *Rāvaṇa*, which probably indicates the foolishness of the demon king in his futile effort of lifting the mountain Kailāśa[8]. This tradition continued during the late mediaeval period also in north India as evident from the miniature paintings of different schools[9]. But on the contrary, in the rock-cut sculptures at Ellora[10], Elephanta, Tamil Nadu and Karnataka[11], *Rāvaṇa* has never been shown with the addition on an animal's head on his turban, probably because he commanded a greater regard in those parts of the country.

With this as a backdrop, we will now briefly discuss a unique bronze image of *Rāvaṇānugrahamūrti* recently acquired by the National Museum, New Delhi (No. 78.342; ht. 31 cm; w. 15.8; Pl. XCIX a-b).

In this bronze image, a large tortoise with scalloped back, bulging eyes, and wide-open mouth with tongue depicted between the teeth is shown at the base. *Kūrma*, which has been shown here as supporting the nether region, earth and the mountain Kailāśa is of special significance. He has been described as an *avatāra* of *Brahmā Prājapati* in the *Śatapatha Brāhmaṇa*[12] and the second incarnation of *Viṣṇu* in the *Purāṇas*[13].

According to the *Bhāgavata Purāṇa*, when at the time of churning the ocean by the gods and the demons for the sake of nectar, the mountain *Mandāra*, which served as the churning rod, began to sink into the ocean due to its heavy weight, Viṣṇu assumed the gigantic form of a wonderful tortoise, plunged into the ocean and bore up the mountain on his back, as a result of which the gods and the demons started again the churning of the ocean.[14] In the present image the large tortoise has been made according to the description of the *Viṣṇudharmottara Purāṇa* which states *Kūrmāvatārinam dēvam kamaṭhākṛtimalikhat, i.e.*, his entire form may be made like that of a *Kūrma*.

The tortoise has on its back the *nāgas*, the denizens of the nether region (*nāga-loka*) supporting the earth on which rests the mountain Kailāśa with its ridges shown prominently on all sides. According to C. Sivaramamurti, the word *nāga* means both an elephant and a snake[15], and 'in the later mythology both snakes and elephants came to be associated with quarters as supporters of the earth'[6], as also shown in the image.

On the detachable pedestal forming the stand for *Nandī*, the figures of *Viṣṇu*, winged *Garuḍa* and *Brahmā* are shown in front. Similarly, behind the bull are depicted the figures of *Gaṇapati* on his *vāhana*, a mouse and *Kārtikeya* seated on his vehicle peacock *Paravāṇī*. But these figures are so small that it is difficult to identify the attributes held by the deities. Between the front legs of the bull is carved a tiny figure of *Śiva* as *Dakṣiṇāmūrti*, or the great teacher of the universe seated in *sukhāsana* on a high hillock with his right hand in *vyākhyāna-mudrā*, thus suggestive of his expounding the philosophy of *yōga*.

The circular lotus seat under the cobra hoods fixed on the back of the caparisoned *Nandī*, the fourfooted *Dharma*, symbolises the presence of *Śiva* and *Pārvatī*, on their favourite mountain Kailāśa, the eternal abode of the divine couple.

The ten-headed *Rāvaṇa* shown in *ālīḍha*-pose, holds a mace and a club in his two hands resting on the ground to keep his balance and the index finger of the front right hand slightly raised and bent forward is in the attitude of playing on the *vīṇā* or the musical instrument held in the front left hand. With his remaining sixteen mighty arms, *Rāvaṇa* is trying, in vain, to hold high the mountain being pressed by the great toe of the right foot of *Śiva*.

Thus, this image is the only extant example in the realm of Indian art wherein *Rāvaṇa* is shown as singing the glory of *Śiva* in *Sāma* hymn in musical tones to appease the Lord and also to get release of himself after being under the mountain for a thousand years. This well-preserved icon can be dated to the Nāyaka period 17th century A.D.

Recently, the National Museum has acquired an interesting painting of the Tanjore School, 18th century A.D., wherein also *Rāvaṇa* is shown playing on his favourite musical instrument, in praise of *Śiva* (No. 77.114) (Pl. C), as depicted in the bronze image briefly discussed above.[17]

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PHOTOGRAPHS : Courtesy—National Museum, New Delhi.

XLIV

Simhakundalas : An Appraisal

Aravinda P. Jamkhedkar

Dr. Margabandhu in his very exhaustive survey of the Material Culture of Western India as revealed from the excavated remains has some observations to make on lion amulets.[1] He points out that such amulets are reported, besides Taxila, from Besnagar, Sambhar, Ter and Nasik.[2] A variety of material seems to be have been used for fashioning these beads such as glazed quartz, garnet, green glazed faience, carnelian, lapis, lazuli, polished crystal and shell.

There are in all seven specimens of lion amulets from Taxila,[3] the majority (*i.e.*, Five) coming from Sirkap.[4] No lion amulet has been reported from Bhir mound. One of the specimens from Sirkap is from the Greek levels[5] and possibly the latest comes from one *stūpa* of the complex at Dhamarājika.[6] The lion beads at Taxila, therefore, fall within a range from 190 B.C.—A.D. 25 (represented by Greek, Early Śaka and Śaka-Parthian levels). The specimen from Nasik is from 'Indo-Roman Period'[7] and the one reported by Dikshit from Ter is dated by him to the first half of 2nd Century. Dikshit, however, says that in the Indian context the date can go back to 300 B.C.,[8] which is not quite off the mark.

We propose, in the article, to discuss the use, significance and date of such amulets/pendants in the light of literary references to ear-pendants and depiction of lion ear-pendants in sculpture.

I

An important set of representations comes from the famous group of caves at Kanheri, near Bombay. The donor couples, depicted on the wall of the inner entrance of the *Caitya* cave[9], are seen wearing tasselled ear-pendants with couchant lion on top (Pl. CI a). The *upāsikā* on the extreme left seems to be wearing a slightly different ear-pendant. Here, instead of a pedestal with pearl tassels which provides the base for the lion, the lion seems to be coming out of a *kuṇḍala* made as though of rolled metal-sheet.[10]

Close scrutiny of the turbans of the *upāsaka* s shows that lions similar to the ones used in the fabrication of the ear-pendants seem to have been fixed on the top-knot of turban in the middle, where on either side of the knot is seen a lion prancing side ways. A similar lion is visible on the side knot of the turban of the *upāsaka* on the right.

That somewhat similar ear-pendants were also in vogue in the north is corroborated from sculptural depictions in the Gandhāra art. The *Bodhisattva* from Shabaaz Garhi, exhibited now in the Musee Guimet,[11] is seen wearing a pair of ear-pendants which are in the shape of a lion (Fig. 40a).

The tradition of depicting portraits of *upāsaka*-s and images of gods with lion ear-pendants does not seem to have restricted itself to Buddhism. In the image of *Kubera*, with an inscription on the pedestal in characters of third century (A.D.) now exhibited in State Museum at Mathura, such ear-pendants are shown in the ears of the god (Pl. CI b). Another example is that of the *Viṣṇu* image from the Avery Brundage collection, exhibited in the Asian Art Museum of San-Francisco.[12] The image comes from Mathura region and is dated to 4th century A.D.

A later specimen (6th Cent. A.D.) of *Viṣṇu* image, from Uttar Pradesh, now exhibited in the State Museum at Bangalore,[13] however, shows a variation in the depiction of ear-pendants (Pl. CII a-b). As against the previous depictions, the lion's body here is seen side ways and the hind portion of the body twirls into a serpentine shape to form the round portion of a *kuṇḍala.* Strictly speaking, the pendant cannot be described as a lion-pendant but as a (*Siṁha*) *vyāla*-pendant, as the lion is shown emitting pearl tassels. That the tradition of ear-pendants with lion motif seems to have spread wide is shown by the wooden image of a *dvārapāla* from Kerala, now exhibited in the State Museum at Bangalore (Pl. CIII a-b). The fierce *dvārapāla,* shown standing with one leg twirled round the mace held in his right hand, wears profuse ornaments. Among these the pair of enormous *kuṇḍalas* with lion is quite prominent. The periphery around the lion-face shows different beaded circles. The wooden image is of the 17th Century.



Fig. 40 a. Bodhisattva from Shahbazgarhi (Musee Guiment, Paris).



Fig. 40 b. Maitreya Gandhara Art in Pakistan (Pl. 293, Harold Ingholt).

The *Śilpa* texts, in parts pertaining to the description of images, some times give specific instructions regarding the apparel and the jewellery to be worn by the specific deity. Two references, one from *Uttarakāmikāgama* and the other from *Śilparatna* are relevant in the present discussion. Here the *kuṇḍalas* have been referred to as *Siṁha-kuṇḍalas.* While describing the *Candyaśekharamūrti,* the *Uttarakāmikāgama*[14] (*Paṭala* 48) enjoins that the right ear of the god should be shown with either a *makara* or *siṁhakuṇḍala.* Similarly, *Śilparatna* (*adhyāya* 22) advises that, in his *sukhāsana* form, *Śiva* may be shown wearing either *siṁha* or *makara-kuṇḍala* in his right ear.[15] From the tradition preserved in the medieval *śilpa*-texts of South India[16] the ear ornaments seen depicted in the sculptural examples described above can very well be described and identified as *siṁhakuṇḍalas* known from the literary sources.

II

The lion pendants/amulets, if not all, at least some, from the early historical levels at sites from Western and Northern India also can be classified as ear-pendants. Through similar in form outwardly, some of these differ from others regarding their perforation. Some from Taxila like those illustrated as No. 9 of Pl. I and No. 6 of Pl. VII have a perforation from side to side near chest.[17] The same is clear in the case of the crystal lion pendant from Nasik.[18] Whereas, Nos. 3 and 4 (Pl. VII) and also probably 7 and 8[19] have a perforation from front to tail. The latter type is more suitable to be worn as an amulet in a necklace or even on arm, whereas the earlier type would be more suitable as an ear-pendant. If, however, such amulets are to be mounted as a part on the turban, as seems to be in the case of male donors at Kanheri, both can be brought into use.

Coming to the date, some observations are necessary. The excavated material very clearly belongs to the early historical period; such pendants have not been as yet reported from post-Kuṣāṇa period. However, besides the very few sculptural depictions which we have brought to notice, there must be many more to show that tradition attached some religious significance to the wearing of such pendants. Deities like *Kubera* and *Viṣṇu* and, attendants to divinities viz., *dvārapālas*—in this case probably a Śaiva—are shown wearing such *siṁha-kuṇḍalas*. This continues to the 17th century; that is till very recent past. Such is the case, as we shall further show separately in an article, even with another variety of amuletic pendants, viz., the tortoise pendants. The enjoinment in the iconographic texts of medieval period very clearly shows that these earpendants, though probably more restricted to religious purposes, were in use.

It is argued that lion amulets/pendants have a special affiliation for Buddhism. *Takṣaśilā* figures in many Buddhist legends and was indeed a great Buddhist centre. In early centuries a majority of the population in Maharashtra, it is observed, followed the precepts of Buddhism; and Nasik and Ter were no exceptions. Lion-pendants had some religious significance is emphasized all the more, as one such pendant was found in a *stūpa* itself. The Buddha was a spiritual sovereign (*dhammacakkavaṭṭī*) and standards with lions and discus (*sīhacakkajjhayā*) usually adorned a *stūpa* or a caitya. The *Buddha* himself is described as a lion among his clan (*śākyasiṁha*).

In the early literature of India, bull (*ṛṣabha*) and lion (*siṁha*) are symbols of virility and prowess; and to address any illustrious person as '*Puruṣarṣabha*' and '*Puruṣasiṁha*' was very common. A number of passages from Rāmāyaṇa and Mahābhārata would stand testimony to this observation. Mythologywise, lion was associated with *Śiva* and later *Durgā*, as his mount. *Balarāma's* ploughshare was marked with a lion. Early iconographic representations of *Balarāma* show this.[20] In the Jaina tradition, which shares many aspects in common with Buddhism, the lion and discus standards are represented in the Votive tablets *āyāgapaṭṭa*-s).[21] Lion figures in the seven and fourteen auspicious objects seen in dream by the mother of *Baladevas* and *Vasudevas, Cakravartins* and *Tīrthaṅkara*-s,[22] lion is the differenciating attribute shown on seat in the *Jīna* images depicting *Mahāvīra*, the last *Tīrthaṅkara*.

The above considerations should suffice to emphasise that lion as an auspicious symbol is not restricted to Buddhism only; it is Indian. Followers of Buddhism probably made popular in the early historical period its use in the form of an ornament.

A bit of elaboration is necessary at this stage. There is nothing special in Buddhist mythology and religious ritual that the lion motif and especially the lion-pendants/amulets should have a special appeal for followers of Buddhism. The followers of *Mahāyāna* Buddhism in ancient Gandhāra. constituted people from varied ethnic background. It is possible that the lion pendant might have had a special significance in some cultural tradition here. It is not a coincidence again that only the site of Sirkap and not that at the Bhir mound, has yielded a large number of these pendants.

The lion pendants date only from the Greek period (190 B.C. onwards) at Sirkap. It has been observed that during the Śaka-Parthian period there was a great influx of object d'art, personal ornaments and the like from the Western World.[23] The technique employed in some beads of this shape supports this observation.[24] A suggestion in this regard by Gorahshakar seems to be interesting.

Donor couples in the *Caitya* Cave at Kanheri are, according to him, Parthian converts to Buddhism who had settled near Bombay in ancient times.[25] The *simhakundalas*, which became popular because of the Parthian elements in Gandhāra region, gained a place in the jewellery of the *Bodhisattvas*.[26] Occurrences of lion ear-pendants at Sambhar, Nasik and Ter can be explained on basis of contact which these regions had with Gandhāra. Inclusion of the *simhakundala*-s among the jewellery of Gods in the iconographic texts pertaining to Purāṇic gods must have come from Mathura, where earliest such examples are noticed. Whether these lion-pendants, which are seen depicted till about 17th Century, were in actual use in the periods contemporary to the depiction in sculptural art and in regions where these are noticed, however, remains to be verified on further corroboration from excavated data and a closer study.

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3. Marshall, Sir J., *Taxila*, Vol. II, p. 748.
4. See the table on p. 737 of the same volume.
5. The same table on p. 737. The Greek levels here have been dated to 190-90 B.C. by Marshall, Vol. I, p. 136.
6. In the *Stūpa* No. 7 was found a crystal lion. This *Stūpa* was rebuilt in 3rd century A.D.
7. Sankalia, H.D., and Deo, S.D., *op. cit.* p. 88.
8. "Notes on Indian Amulets" *Bulletin of Prince of Wales Museum of Western India*, No. 2, p. 94. Dikshit has also observed "In Egypt both these types (*i.e.*, amulet in the shape of the full figures of lion and lion's head) occur in VI-XI Dynasties. A lion-shaped amulet in Lapis lazuli was found in Queen Shubad's Grave at Ur in Mesopatamia" This shows that the type was prevalent in Egypt and Mesopotamia in very early times.
9. Zimmer, H., *Art of Indian Asia*, Vol. 2, Pl. 84 and 85.
10. Such *kundalas* made of rolled lead sheets have been reported from early historical levels from different sites in India. These are referred to in literature as *sīsapatrakas*. Eg. Deo, S.B., *Bhokardan Excavation*, p. 184. No specimen similar to the one depicted in the above mentioned sculpture, *i.e.*, with lion motif, has yet come to notice.
11. *Hallade, M., Gandhara Style and the Evolution of Buddhist Art.* The illustration on p. 93 (Line drawing illustrated).
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14. Rao, T.A.G., *Ibid.*, Vol. II, appendix p. 55.

    रत्नपत्रिकया वाऽपि इङ्गपत्रिकयाऽपि वा ।
    तद्मपत्रिकया वाऽपि शोभिंत नाम कर्णकं ।।
    मव्यं मकरसिहाख्य पत्रकुण्डलयैर्युतम् :

15. Rao, T.A G., *Ibid.*, Vol. II, appendix p. 65.

    दक्षिणे मद्मराग्ख्यं कुण्डलं सिहमेव वा ।

16. Gopinath Rao, while discussing the dates of *Śilpa* texts, states that *Kāmikāgama* is not prior to 5th-6th Cent. A.D. (*Ibid*, Vol. I, Part 1, p. 55). *Śilparatna* was probably composed as late as 14th Century.
17. Cf. Beck, *MASI*, No. 65, pl. VII.
18. Sankalia and Deo, *op. cit.*, p. 88, Pl. XXI, 2.
19. Beck., *Loc. cit.*
20. Joshi, N.P., "On the Iconography of Balaratha in North India", *Bulletin of Museums and Archaeology in U.P.*, Vol. 10 (December, 1972), p. 24.
21. *Studies in Jain Art*, *Āyagapaṭṭa* of Bhadranamdi, Pl. III, Fig. 10.
22. *Ibid.*, pp. 105-107.
23. Marshall, J., *Taxila*, Vol. II, p. 750.
24. *Ibid.*, Vol. II, p 739.
25. *Dawn of Civilization in Maharashtra*, p. 28. According to him, the origin of the lion motif can be taken to lion-shaped rhytons which were popular among the Parthians.
26. Examples of *Bodhisattva* Illustrations 291, 293, 299 etc. in *Gandhāra Art in Pakistan*. Gorakshakar makes an observation that *Simhakundalas* form a part of the jewellery only of *Maitreya* (Fig. 40 b). No specific reason, however, can be afforded for such an observation, if it is a correct one. See also krishnamurti, *K.*, *Gandhara Sculpture—A Cultural Study*.

XLV

Siva Temple at Rajamau and the Historical Paintings of 1857 Revolt

M.C. JOSHI

LOCATION

Rajamau (Lat 26° 26′ north and Long 81° 3′ east) is a small village situated at a distance of about 8 Kms. to the south-west of Bachhrawan, a minor township in Rai Bareli District on the Lucknow-Rai Bareli road. It served as the headquarters of the Naihasta Bais estate of Udrehra before the abolition of zamindari in U.P. The founder of the Bais (Rajput) Taluqdar family of Rajamau was Bhagwan Bakhsh Singh who inherited landed property from his distant cousin Thakurani Gulab Kunwar, a Gahalot lady, some time about the middle of the last century.

TEMPLE—STRUCTURE

The *Śiva* temple at Rajamau (Pl. CIV a) stands immediately outside the residence (*haveli*) of the former Taluqdars. The *haveli*, wherein bricks of modern type have been used in construction, was probably raised by Taluqdar Shiv Narayan Singh along with the main gate in V.S. 1860 (A.D. 1912) as testified by a Nāgarī inscription thereon. However, the *Śiva* temple built of thin *lakhauri* bricks appears to be an edifice of an earlier date as it has been suitably adjusted in the general structural scheme of the *haveli*. Locally, this shrine is believed to have been built by Bhagwan Bakhsh Singh, the predecessor of Shiv Narayan Singh during the early period of his Taluqdari. It is stated that the chief workers employed for the construction and ornamentation of the temple came form Lucknow. This is also evidenced by the structure itself which bears an imprint of the later phase of the medieval art of Lucknow. Yet, it is difficult to date the shrine in precise terms; however, in view of the local traditions, art and structural styles employed herein the building appears to have been raised some time during the third quarter of the nineteenth century.

Centrally rising above a 1.70 m high platform (24.80 m × 24.65 m), which seems to have been rebuilt and enlarged in the early twentieth century; the *Śiva* temple at Rajamau is in the form of a solitary octagonal tower (*prāsāda*) with pronounced verticality. Shrines of this type with or without attached porches were built in the nineteenth century in and outside Oudh as far as Kannauj. With stylized architectural features these are arnate constructions representing a fusion of the traditional format of a temple and that of Mughal building. However, the early specimens of such temples can be seen at Vrindāban in *Madan Mohan* and *Jugul Kishor* shrines datable to the period of Jahangir (A.D. 1605-27). The height of this temple is approximately 20 m with each side of the octagon measuring 4.05 m above the moulded base (*adhiṣṭhāna*). Externally the lower (*jaṅghā*) and upper stages of the tower (*śikhara*), separated by means of *chhajjās*, bear interesting decorative features. Marked by banded pilasters with flutings at the angles, each of the eight faces of the *jaṅghā* has a framed arcuate (muttifoil) recess of low depth with ornate semicircular or triangular (pedimental) top and decorative balconies (*gaukhs*) above. Recesses facing the east and west, which are provided with stone door-frames, have been converted into entrances leading to the interior. The *śikhara* resembling an octagonal cone has internally a domed character. It is chiefly diversified by highly stylized finial like *aṅga-śikharas* in

vertical rows and fluted top with double petalled inverted lotus and crowning *kalaśa*. The exterior also contains fine stucco decoration and traces of painted designs.

The domed interior enshrines a *Śiva liṅga* of black stone with marble *Nandī* on one side. Crudely sculptured images of *Gaṇeśa*, *Sūrya*, *Lakṣmī-Nārāyaṇa*, *Mahiṣmardinī*, *Bhairava* and *Brahmā* have been installed on the side walls. The floor has been paved with marble-slabs. The decorative pilasters marking the inner angles of the octagon are decked with crude but painted stucco figures of attendant divinities or devotees at the springing level of the dome and below. The whole interior, with the exception of the lowest portion of the wall which appears to have been repaired to height of 2 m to 2.50 m from the floor level, preserves fine examples of colourful paintings executed on white plaster illustrating episodes from every day life of aristocracy and common man, as well as ornamental designs.

PAINTINGS

The paintings, especially the human and animal figures, are marked by bold outlines and a touch of conventionalism. Excepting a few portraits of princes and females (courtesans), the other paintings are rather crude and perhaps conform to the prevailing folk style of the region which may be compared to the contemporary Kālighāt paintings of Bengal in certain cases. Following closely the Mughal tradition of ornamentation, the painted decoration shows better workmanship than the narrative scenes of portraits. In general, the paintings mainly bear the influence of the late Mughal and Lucknow Qalms besides those of the popular Bazar and traditional styles of the nineteenth century. In the colour-scheme, use of bright blue and dark ochrous red is significant.

The soffit of the dome is ornamented with neatly-executed arabesque and geometric patterns, below which each side of the octagon has been divided into three broad framed-panels, the top one being semi-circular and the middle and lower ones rectangular. The main subjects normally delineated are on the central panels and minor ones on the sides.

The principal themes from Brāhmanical mythology consists of *Kṛṣṇa*-lila scenes, *Śiva's* marriage process (Pl. CIV b.) *Rāma's* coronation (Pl. CV a), *Rāvaṇa* with demons and *Rāma-Lakṣmaṇa*, *Vibhīṣaṇa*'s coronation ceremony (Pl. CV b), story of *Śravaṇakumāra*, *Daśāvataras*, *Viṣṇu* on *Ananta*, etc. The Brāhmanical deities depicted on the walls include mainly *Durgā* on lion, *Gaṅgā*, *Rādhā-Kṛṣṇa*, *Rāma-Sītā*, *Gaṇeśa*, *Kārttikeya*, *Vindhya-vāsinī*, Lord *Jagannātha*, *Hanumān*, *Pañchamukhī-Śiva*, *Dattātreya*, *Gaja-Lakṣmī*, *Devī*, *Ardhanārīśvara* (Pl. CVI a), *Bhairava*, *Kālī*, *Śiva-Pārvatī*, *Varāha* and *Matsya-avatāra*. Other interesting representations are of winged mermaids and *paris* and many animals including giraffes. More attractive are the paintings of secular character showing wrestlers, jugglers, *fakirs*, soldiers, riders, nobles, courtesans in different postures, etc., which furnish an idea of the contemporary social life of Oudh.

SCENES SHOWING LEADERS OF 1857 REVOLT

Particularly important from the historical point of view are two painted scenes, one depicting a lady clad in a *sakachchha sāri* (in Maratha fashion) riding a horse and killing with a spear a European (or British) soldier who is lying below. Probably it portrays some event connected with the life of Lakṣmī Bai, the *Rānī* of Jhānsi (Pl. CVI b) during the anti-British uprising of 1857. Another notable painting which could be associated with the events of 1857 represents an encounter between an Indian (Marāthā) (Pl. CVII a) rider and three British soldiers holding guns. These scenes make it absolutely clear that even after the failure of 1857 revolt and establishment of the authority of the British Crown, the tiny Taluqdar family of Rajamau had respect for 1857 leaders and an anti-British outlook. That is why they adored the walls of their private shrine with such portraits.

A third painting (Pl. CVII b) illustrates a court scene with a seated king at one end facing a dancing *pari* and five males including a demonic figure with animal face. Another demonic male holding a chauri stands close to the seat of king. The depiction is not without significance. It is tempting to identify it as a scene from *Indra-Sabhā* or some other drama written by Nawab Wazid Ali of Lucknow wherein he himself played the principal role. But one cannot be definite on this point as there is no positive evidence to identify it as such.

The temple, although not significant structurally, deserves study for the fact that it preserves lost art heritage of Oudh.

XLVI

The Illustrated Manuscripts of the Gita-Govinda from Orissa

KAPILA VATSYAYAN

Although the controversy of whether or not Jayadeva belonged to Bengal or Orissa has remained unresolved, there is no gainsaying that Orissa is the richest repository of the traditions of the *Gīta-Govinda* in the literary, pictorial and the performing arts alike. Further, the rich epigraphical material relating to the singing of the *Gīta-Govinda* in the Jagannāth Temple bears testimony to its unique place in the rituals of the Jagannāth cult.

While a full and comprehensive study of the influence of the *Gīta-Govinda* in the arts of Orissa is awaited, valuable work has been done by scholars like Kedarnath Mahapatra, N.K. Sahu and G.N. Dash. They have brought to light many hundred manuscripts of the *Gīta-Govinda* and an equal number of works based on the *Gīta-Govinda* in Sanskrit and Oriya. All this provides rich source material for the study of the traditions of the *Gīta-Govinda* in Orissa in the literary and the pictorial arts.

Amongst the manuscripts both in Sanskrit and in Oriya, there are nearly forty illustrated manuscripts ranging from the sixteenth to the early twentieth century. Today, they are distributed in public and private collections. Notable amongst these are the illustrated manuscripts of the *Gīta-Govinda* in the Orissa State Museum, the Ashutosh Museum, the L.D. Institute, Ahmedabad, the British Museum and the National Museum, New Delhi. A few scattered folios of other *Gīta-Govinda* manuscripts are also available in the collections of the Indian Museum, Calcutta, the Bhārat Kalā Bhavan, Vārāṇasī and the National Museum, New Delhi.

The present paper confines itself to a consideration of the illustrated manuscripts in these collections, although never overlooking the fact that the illustrated manuscripts are only one amongst several other types of sources which need to be tapped for a fuller consideration of the history of the influence of the *Gīta-Govinda* in Orissa. Elsewhere an attempt is being made to present an annotated history of this source material of all categories.

A Perusal of the illustrated manuscripts of the *Gīta-Govinda* clearly reflects the deep impact and popularity of the *Gīta-Govinda* in Orissa. They are also valuable for tracing the evolution of a distinctive Orissan School of painting which has so far received only inadequate attention of scholars.

The earliest textual commentaries of the *Gīta-Govinda* have been ascribed to the writers from Orissa. Amongst these is *Bhāva Vibhavinni* by Udayana Āchāraya (*c.* A.D. 1190) and the *Sarvāṅga Sundarī Ṭīkā* by Kavirāja Narāyāṇdāsa (*c.* A.D. 1300).

There appears to be a lull of about a hundred years before the *Gīta-Govinda* assumes renewed importance in Orissa. From the fifteenth century onwards appear a number of commentaries, translations and imitations of the *Gīta-Govinda.* Also from the sixteenth century onward appear a number of commentaries in Oriya Script, but were definitely written in other parts of India. Amongst these is the *Rasika Raṅgada Ṭīkā* by Lakṣmaṇ Bhatt and the *Srittirañjani Ṭīkā* by Lakṣman Sūrī. This phenomenon of copying into Oriya commentaries written in other parts of India speaks of the pervasive popularity of the text and the active dialogue between different parts of India.

The imitations of the *Gīta-Govinda* in Sanskrit and other Indian languages are next in number only to the imitations of the *Meghadūta*. In Orissa, these were particularly numerous from the fifteenth century onwards. The *Abhinava Gīta-Govinda*, ascribed to Rājā Divākara Miśra (A.D. 1494), has been the cause of heated controversy in the context of the singing traditions of the *Gīta-Govinda* in the Jagannāth Temple. These controversies are clear proof of the fact that whether Pratāp Rudradeva introduced or banned the *Abhinava Gīta-Govinda*, there is no doubt that both the original and its imitations were popular. The fact that priests could oppose or support an imitation is indicative of the paramount place given to the *Gīta-Govinda* as a sacred text used for ritual.

About the same time, at the end of the fifteenth century, also begin to appear dramas based on the *Gīta-Govinda*, which were markedly different from the lyrical versions. Important amongst these is the *Jagannātha Vallabha Nāṭaka* ascribed to Rājā Rāmānand Paṭṭanāik, the Oriya Governor of Rājamundhri, now in Andhra (*c.* A.D. 1509). The *Jagannātha Vallabha Nāṭaka* is also called the Rāmānanda *Saṅgītanāṭaka*, and in the introduction, the author speaks of its performance for the delight of his patron, Gajapati Pratāpa Rudradeva. The drama contains about 21 songs which are modelled on the verses of the *Gīta-Govinda* and it is divided into five acts. The lyrical flow of the *Gīta-Govinda*, in which one mood merges into another, is replaced here by a dramatic presentation of the sequence of events.

Judging from the fact that later musical texts of Orissa, ranging from the *Gītaprakāśa* of Krisṇadāsa (A.D. 1550-1570), the *Saṅgīta Kalpalatā* of Haladhara Miśra (A.D. 1600-1630), the *Nāṭyamanorama* of Raghunāth Rath (A.D. 1680-1700), quote profusely from this drama and its popularity in other parts of India, it is obvious that the *Gīta-Govinda* was responsible for a *genre* of dramatic performance called the *saṅgītanāṭaka*. This *saṅgītanāṭaka* was the precursor of the better known *Kṛṣṇayātrā*, or just *yātrā*, tradition of Orissa.

To the sixteenth century also belongs another type of drama. This time, an one-act play, the *Piyūṣa Laharī*, attributed to Jayadeva II (son of Kavi Dimdima Jīvadeva Āchārya), vividly describes the *rasa* of Rādhā and Kṛṣṇa. The author coalesces into one, the *Śrīmad Bhāgavata* tradition and the *Gīta-Govinda* tradition, specially in the treatment of Rādhā. In the *Śrīmad Bhāgavata*, Rādhā appears but faintly; in the *Gīta-Govinda* she is the heroine, single and distinct. In the *Piyūṣa Laharī*, she appears as one amongst the several gopis seeking Kṛṣṇa's love. The drama was staged in the compound of the Jagannāth Temple at Puri : it was presented in *garuḍa-dhvaja prāsāda* before an assembly (*samāja*). The author himself calls his work a *goṣṭi*. Several other dramas, including *Vaiṣṇavāmṛtam*, were enacted in the courtyard of the Temple.

From these works and other circumstantial evidence, it would appear that the *Gīta-Govinda* gave rise to three parallel, distinct, but related traditions. The first was the recitative and singing traditions of the *Gīta-Govinda* inside the temple as part of ritual; the second was a *saṅgītanāṭaka* tradition of dramatic presentation; and the third was the tradition of one-act plays. Many significant works were written in each of these traditions and a long listing is possible.

Another development which is directly related to the above is that of the several translations of the *Gīta-Govinda* in Oriya, the most important amongst these being that of *Dharaṇīdharadāsa*. The translations are significant, both for their faithfulness, as also their departures and deviations from the original *Dharaṇīdharadāsa*, for example, does not follow in to to the division of the *sargas* and the *prabandhas* of the *Gīta-Govinda*. Instead, he divides his work into twelve *sargas* and sixteen *chhandas*. Besides assigning *rāga* and *tāla*, there is the additional mention of *vāṇī* which can only refer to a style of musically rendering the *aṣṭapada*. Also significantly, *Dharṇīdharadāsa* omits the controversial ninteen verses which have been ascribed to *Kuṁbha's* interpolations in the text. These are found only in the longer recensions and not in the shorter recensions of the *Gīta-Govinda*. The directness and the simplicity of these verses is effectively communicative; obviously the author was aiming at reaching large masses of people. The *Rasavāridhī* is another important translation of the *Gīta-Govinda* : this is ascribed to the *17th century*. It appears to have been popular in all Eastern India and there is evidence to prove that it was popular in Manipur. Like *Dharṇīdharadāsa*, *Vṛndāvanadāsa* also assigns both *rāgas* and *vāṇīs* to the twenty *chhandas*. The translator also takes liberty with the sequence of the *prabandhas*. For example,

the *Daśāvatāra stūti* becomes the first *chhanda*, and the opening lines of the *Gīta-Govinda*, beginning *meghe mendure*, the 3rd *chhanda* and so on.

1. *Se ye āmhāre meghe ācchā dila,*
   Chāyā bhūmilokare prakāśaśīla.
2. *Vana bhuvan śyāma meghe teje,*
   latā tamāla druma bhittipuñje.
3. *Vijulatanka ākāre cañcal,*
   bheru śunya gajāranti meghamālā.
4. *Sune rādhikā gocare govinda,*
   vege sampiraleka raya nanda.
5. *Tuhu ye yaha anumate gale,*
   pratiadhava junjabana milile.
6. *Rādhā mādhava yamunā kulere,*
   rati jaya ekānta bhuvanare.

The illustrated manuscripts of the *Gīta-Govinda* belong to all the literary categories mentioned above. We come across illustrated manuscripts with the original Sanskrit in Oriya and Devanāgarī characters, imitations of the *Gīta-Govinda* translations of the *Gīta-Govinda*. In order to understand the exact relationship between the poetic phrase and the pictorial imagery, it is necessary to take cognizance of the fact that the painter was inspired and stimulated, not only by the general sequence of the narrative, but by the specific poetic phrase of the imitation, translations, recension, etc. This inextricable relationship between the text and the pictorial visualisation governs the content and the stylistic features of the painting. Art historians have so far either discussed the textual material in terms of its general thematic content and the illustrations, or have confirmed themselves to an analysis of the stylistic features. They have not scrutinised the poetic and pictorial imagery in their integral relationship and juxtaposition. The Orissan painted illustrations present also a pheonomenon from which it is possible to identify the nature and level of understanding of the painter of the textual material at his command.

From the several manuscripts examined, it has also been possible to identify different phases of Orissan painting. Scholars have hitherto classified Orissan paintings on the basis of the materials used and consequential stylistic differences. These have been roughly divided into the palm leaf manuscripts and the paper or parchment manuscripts. The latter have also been grouped under the variety commonly called *paṭa* or *paṭa citra*. Our investigations reveals that within the palm leaf manuscripts themselves, it is possible to identify distinct stylistic developments. We have thus classified the palm leaf, paper and parchment manuscripts into the Three phases.

Phase I (Pl. CVIII a)—These belong to the sixteenth century and the palm leaves are normally long and narrow.

They are all in the category of incised drawings, but reveal an emphasis linear on draughtmanship, incorporation of flora and fauna and an austere, restrained treatment. Amongst these, the most important is a manuscript of the *Gīta-Govinda* No. 44 in the Orissa State Museum. This is clearly later than the fragments of the three paintings which have been described by Barrett and Gray[1]. Another manuscript close to this style in Exhibit No. 46 (Pl. CVIII a).

Phase II (Pls. CVIII b-c; CIX a-b)—These belong to the seventeenth and eighteenth centuries. The size of the palm leaves is roughly 35.5×4 cms. The style of painting becomes more ornate and there is the development of features which are normally characterised as typically Orissan, such as broad shoulders and heavy torso and bust, a narrow waist and round hips. The figures are more rotund and the *Gīta-Govinda* is alrealy interpreted as an erotic work. In colouring, there is a marked use of dark blue and red, an absence of yellow and oranges. Amongst the Orissan *Gīta-Govinda* manuscripts of this phase is Exhibit No. 24 of the Orissa State Museum (Pl. CVIII b). There are others, such as Exhibit No. 35 (Pl. CVIII c).

Phase III (Pl. CIX c; CX a-b; CIX a)—Illustrated manuscripts of this period belong to the eighteenth and nineteenth centuries. They are either monochrome, with only incised drawings in black, or have

been painted in brilliant yellow. Some amongst these are the folding type of *tata patra* paintings, which unfold into a design of the Jagannāth Temple. Many examples of these are known in various collections of India, of the U.S.A. and of U.K.

In the category of paintings on paper, the most important *Gīta-Govinda* manuscript is in the National Museum, with a few folios in the Bhārat Kala Bhavan and in the Jagdish Mittal Collection at Hyderabad. It has text written in Devanāgarī on top and a richly decorated illustration in the greater part of the painting. While it is not possible to describe in detail each of the folios of all the manuscripts, we enumerate below illustrative examples of a few folios. This will support our initial observation of the relationship of the text and the painting and of the evolution of style.

Manuscript No. 4869 No. 44 is the oldest amongst the illustrated manuscripts of the *Gīta-Govinda* from Orissa. The complete text of the *Gīta-Govinda* has been written on 37 palm leaves in old Oriya characters. On the basis of the orthography and the stylistic features of the incised paintings, this may be ascribed to the sixteenth century. The colours of the paintings have unfortunately faded. Nevertheless, it is possible to judge the excellence of the drawings.

A brief description of the folios is given below :

Folio 1 : Obverse—Tāṇḍava dance of Gaṇeśa—very beautiful.
Reverse—Kṛṣṇa and Rādhā.

Folio 2 : Saraswatī, Nanda, Kṛṣṇa and Rādhā.

Folio 3 : Obverse—Avatāras of Matsya, Kūrma, Varāha, Narsiṁha, Vāmana, Paraśurāma, Rāma.
Reverse—Combination of Kṛṣṇa and Balarāma. Jagannāth in place of Buddha.

Folio 4 : Obverse—Kalki, Nārāyaṇa holding Cakra, Śaṅkha, Gadā and Padma;
Reverse—Dola in a bower, Kṛṣṇa nearby.

Folio 5 : Obverse—Madhusūdana in archer form (Madhu-Mura-Naraka-venasana);
Reverse—Rāma fighting with Rāvaṇa.

Folio 6 : Obverse—Godhana carana, Rādhā-Kṛṣṇa on peacock;
Reverse—Two dancing peacocks. Rādhā-Kṛṣṇa.

Folio 7 : Obverse—A group of six females; this portrays the Candana, Carcita verses.
Reverse—Rādhā and Sakhī dancing *mayūra, Hariṇa.*

Folio 8 : Obverse—Gopī and Kṛṣṇa in a Kuñja;
Reverse—Kṛṣṇa with two ladies on either side.

Folio 9 : Obverse—Figures within six decorated niches.
Reverse—Rādhā and sakhī.

Folio 10 : Obverse—Kṛṣṇa in a grove—This depicts the *ratisukha sāre prabandba.*
Reverse—Kṛṣṇa and Sakhī.

Folio 11 : Obverse—Kṛṣṇa-Rādhā and peacock;
Reverse—Text only, on illustration.

Folio 12 : Obverse—Kṛṣṇa reclining on a divan.
Reverse—Kṛṣṇa, a lady lying prostrate before him.

Folio 13 : Obverse—Kṛṣṇa in a melancholy mood.
Reverse—Kṛṣṇa and Sakhī.

Folio 14 : Obverse—Kṛṣṇa.
Reverse—Rādhā reclining on a divan.

Folio 15 : Obverse—Kṛṣṇa resting on a divan with big round pillows.
Reverse—Kṛṣṇa playing on flute.

Folio 16 : Obverse—Rādhā and dūtī.
Reverse—Kṛṣṇa in a Kuñja.

Folio 17 : Obverse—Rādhā and dūtī.
Reverse—Rādhā reclining on a divan. Rādhā and Kṛṣṇa in erotic posture.

Folio 18 : Obverse—Text only, no illustration.
Reverse—Rādhā and Kṛṣṇa in a Kuñja.

Folio 19 : Obverse—Rādhā, Kṛṣṇa and dūtī.
Reverse—Sakhī, Rādhā and Kṛṣṇa.
Folio 20 : Obverse—Rādhā alone.
Reverse—Rādhā and Kṛṣṇa.
Folio 21 : Obverse—Rādhā and Kṛṣṇa.
Reverse—Kṛṣṇa and Rādhā.
Folio 22 : Obverse—Rādhā alone.
Reverse—Rādhā talking with the Sakhī.
Folio 23 : Obverse—Sakhī, Rādhā and Kṛṣṇa.
Reverse—Kṛṣṇa and Rādhā.
Folio 24 : Obverse—Kṛṣṇa and Rādhā.
Reverse—Ratikrīḍā of Rādhā-Kṛṣṇa.
Folio 25 : Obverse—Kṛṣṇa kissing Rādhā.
Reverse—Text only.
Folio 26 : Obverse—Ratikrīḍā of Rādhā-Kṛṣṇa.
Reverse—Text only.
Folio 27 : Obverse—Rādhā reclining and Kṛṣṇa sitting near her.
Reverse—Rādhā-Kṛṣṇa in erotic postures.
Folio 28 : Obverse—Text only.
Reverse—Ratikrīḍā of Rādhā and Kṛṣṇa.
Folio 29 : Obverse / Reverse } Ratikrīḍā of Rādhā-Kṛṣṇa on both sides
Folio 30 : Obverse—Not distinct.
Reverse—Rādhā resting.
Folio 31 : Obverse / Reverse } Rādhā and Kṛṣṇa in erotic postures on both the sides.
Folio 32 : Obverse—Ratikrīḍā of Rādhā and Kṛṣṇa.
Reverse—Rādhā resting, Kṛṣṇa sitting by her.
Folio 33 : Obverse / Reverse } Ratikrīḍā of Rādhā and Kṛṣṇa on both the sides.
Folio 34 : Obverse / Reverse } Ratikrīḍā on both sides.
Folio 35 : Obverse / Reverse } Ratikrīḍā on both the sides.
Folio 36 : Obverse—Rādhā-Kṛṣṇa standing.
Reverse—Kṛṣṇa.
Folio 37 : Obverse—Rādhā-Kṛṣṇa rati.
Reverse—Rādhā-Kṛṣṇa standing.

From the illustrations of some of these folios, it will be clear that the painter is fairly selective of the episodes he chooses to present pictorially. He also introduces an element of symbolism in the paintings through the introduction of peacocks, haṁsa-haṁsinī, etc. It is not possible, however, to relate line and verse in each of the folios. Also often Rādhā's fantasies of Kṛṣṇa meeting another gopī is seen as Rādhā and Kṛṣṇa.

Exhibit No. 46—This is a dated manuscript. It was acquired from Jaipur, Cuttack District. The name of the scribe is Kṛṣṇakiṁkara Deva Sharma, son of Vāsudeva Sharma. It is dated 1639, roughly equal to A.D. 1717. There are thirty-seven folios with the verses of Dharṇīdharadāsa's translation of the *Gīta-Govinda.* The manuscript is profusely illustrated with an effective use of red, black, blue, brown, deep red and even yellow. The figure drawing, however, has not yet acquired a squat rounded character. The usual type of doodling techniques of later Orissan paintings are also not in evidence. The painter seeks to portray the varied moods of Rādhā and Kṛṣṇa through the drawings. In a single folio, the same

character is drawn three or four times to caputre the subtle shades of transition from one transient state to the next. His concern is thus much more with feeling and with the state of mind rather than with the sequential development of the narrative action. This method is somewhat different from the one adopted by the Rajasthani painter, either in the Javara or the Mewar *Gīta-Govinda*, where a single verse or a single episode is depicted in a single folio. This is evident in many folios, specially in the paintings based on the fifty and sixty *sargas*, where the pining and separation of Kṛṣṇa and Rādhā are described. The paintings become counterparts of the rendering of the musical phrase and the technique of *abhinaya bhāva* in dance, rather than a slavish illustration to a verbal text. Naturally some folios, such as those of the *Daśāvatara*, are purely figurative and descriptive and not interpretative in nature. Enumerated below are the folios with a brief description :

L.I 146 EXHIBITED

The palm leaf manuscript contains the entire text of the *Gīta-Govinda* with translation in verses by Dharaṇīdharadāsa. No. of folios : 38, brittle, with ends of leaves broken. One illustration, on folio 26, broken and lost. The Oriya characters used in the text are very small and illegible. The illustrations are very lively and prominent. The colours, red, black, white, yellow, brown, etc. used in it, have not faded. Below is given a list of illustrations, which were made in A.D. 1710-17.

Folio 1 : Text on both the sides.

Folio 2 : Obverse—Text.
Reverse—Incarnations of Viṣṇu :
(1) Matsya, (2) Kūrma, (3) Varāha, (4) Nṛsiṁha, (5) Balī and Vāmana, (6) Paraśurāma fighting with Rāma.

Folio 3 : Obverse—(7) Rāma fighting with Rāvaṇa; another fighting scene which could not be made out, (8) Balarāma holding a plough, Rādhā-Kṛṣṇa, Kṛṣṇa standing in the middle with flute, under a Kadamva tree; a gopī on the right, holding a chamura, another talking, Jagannātha in place of the Buddha. The upper two hands resembling the hands of Jagannātha, the lower two hands folded, (10) Kalki.

Folio 4 : Text on both the sides.

Folio 5 : Obverse—Text.
Reverse—Rādhā, Kṛṣṇa and dūtī; Rādhā and Kṛṣṇa standing in the middle; Two gopīs are dancing and one gopī is playing on a vīṇā; Rādhā and dūti talking; Rādhā standing alone : this is obviously the pictorial depiction of *lalita lavaṅga latā* (Pl. CVIII a).

Folio 6 : Obverse—Rādhā and dūtī, a gopī playing on a vīṇā; Rādhā holding Kṛṣṇa playing on a flute, dūtī talking. Another gopī playing on some musical instrument.
Reverse—Haṁsa and haṁsī in orotic posture, several palm-trees; four deer running swiftly; Kṛṣṇa and a gopī; Kṛṣṇa embracing a gopī; a gopī talking with Kṛṣṇa; two gopīs holding Kṛṣṇa, standing in a tribhaṅga pose and playing on a flute, and Sakhī; Dūtī holding the hand of Rādhā, another gopī; Kṛṣṇa kissing a gopī with two gopīs on two sides. It is the continuation of the *candana carita* verses.

Folio 7 : Obverse—Text.
Reverse—Rādhā and Sakhī; wandering of Rādhā in the groves (viharativane Rādhā).

Folio 8 : Obverse—Text.
Reverse—Vanamālī (Kṛṣṇa) standing in a tribhaṅga pose and playing on a flute; *camara-dhāriṇī* gopī, Sakhī, a gopī holding a fan; two sakhīs keeping their hands on the waist of Kṛṣṇa.

Folio 9 : Obverse—Rādhā sitting on a wooden stool and talking with a Sakhī, under a toraṇa; a peacock on a tree and Rādhā standing alone.
Reverse—Text.

Folio 10 : Obverse—Rādhā seated and the Sakhī is giving some message; dancing Kṛṣṇa, three gopīs on the right side, the middle one holding a fan, two gopīs on the left, the second holding a 'trasa' big fan.
Reverse—Text.

Folio 11 : Obverse—Rādhā, Kṛṣṇa and Sakhī under a toraṇa, peacock.
Reverse—Text.

Folio 12 : Obverse—Kandarpa under a toraṇa. 3rd sarga, after 1st to 7th Versa Mayūra, a pair of haṁsa and haṁsī.
Reverse—Text.

Folio 13 : Obverse—Sakhī fanning Rādhā, who is ormented by the moon by raising her two hands. (*Nindati candanamindukiraṇam*); Sakhī and Kṛṣṇa in a cane-grove, on the back of the yamunā (*yamunātīravaniranikuñje*) in a melancholy mood.
Reverse—Text.

Folio 14 : Obverse—Sakhī and Rādhā in four different postures, each depicting Rādhā in a despondent state.
Reverse—Rādhā.
Rādhā sleeping on Hower bed (*Karoti Kusum śayaniyam*).
1414—sarga, Gīta 8.
Rādhā weeping (*Rādhā rodati*).
Rādhā drawing a picture in her loneliness (*vilikati rodasi*).
Rādhā saluting (*praṇamati*).
Kandarpa; Rādhā imploring (punsh śaraṇam).

Folio 15 : Obverse—Sakhī and Kṛṣṇa in one section; in the next four Rādhā is repeated as follows :—
(a) Rādhā (*stana vinihitamapi hāramudaram*).
(b) Rādhā (*candanapauka-viṣaṁ*).
(c) Rādhā (*diśidiśi kirati*).
(d) Rādhā (caption not legible) either *gāyayati* or *tyājati*).
The poses are significant and eurocative : they are serialised arresting of movement.

Folio 16 : Obverse—(a) Rādhā muttering Hari, Har (*Hari Hari boli gapui Oriya*).
(b) Rādhā thinking of candra and candana (*Candana, Candra-kiraṇa cinti Oriya*).
(c) Śrī Kṛṣṇa.
(d) Sakhī near Rādhā.
Reverse—Text.

Folio 17 : Obverse—Text.
Reverse—The folio is divided into five sections :
(a) Kṛṣṇa (*Luṭhati dharaṇi śayane bahu vilapati tavanāma*).
(b) Krisna (*dhvanati madhūpa samūhe śravaṇamapi dadhāti*).
(c) Kṛṣṇa (caption not legible).
(d) Krisna (*Dahati śiśiramayukhe maraṇamanukaroti*).

Folio 18 : Obverse—This is an indoor scene with clearly demarcated areas by architectural motifs.
Reverse—Text.

Folio 19 : Obverse—(a) Sakhī speaking.
(b) Ratikrīḍā.
(c) Sakhī and Kṛṣṇa.

(d) Sakhī-Rādhā : the Sakhī describes Kṛṣṇa's state to Rādhā.
(e) Sakhī Rādhā : The Sakhī imporing Rādhā to meet Kṛṣṇa in the groves under cover of darkness.
(f) Purṇa—Kuṁbha with two fishes in each side. Although the significance of the symbol is not clear, it is perhaps a symbol of the fulfilment of the lovers.

Folio 20 : Obverse—Text.
Reverse—The folio is divided into four sections :
(a) Sakhī speaking to Kṛṣṇa.
(b) Rādhā.
(c) Rādhā.
(d) Rādhā indicating the abhisāra of joyful Rādhā.
(e) Fatigued Rādhā (Oriya caption *varane cale na pariva bhūmire padal Rādhā*).
(*Patati padani Kiyanti calanti*).
(*Gīta* 12, sarga 6).
The sitting postures of Rādhā are of great interest. So also are the architectural features.

Folio 21 : Obverse—Text.
Reverse—(a) Rādhā; (b) Rādhā; (c) Rādhā in different postures, all portraying the states of Rādhā in the *paśyati diśi diśi* and verses of the sixty sarga.

Folio 22 : Obverse—(a) Rādhā and dūtī, (b) Dūtī.
Reverse—Text.

Folio 23 : Obverse—(a) Ratikrīḍā of Kṛṣṇa.
(b) Sakhī Kṛṣṇa, Sakhī in a movement of the dance.
(c) Ratikrīḍā of Kṛṣṇa.
Caption—*Samudita madane Kamans—vadans cumvana Kalitādhare* of the seventh sarga.
Beautiful yamunā with full-flower lotus flowers, haṁsa, mṛga and palm-trees.
Reverse—Text.

Folio 24 : Obverse—Text.
Reverse—(a) Rādhā; (b) Rādhā; (c) Rādhā in different postures.

Folio 25 : Obverse—(a) Kṛṣṇa; (b) Rādhā; (c) Rādhā.
Caption : "*Rajanī janita gurujaguru ruga-kesayilamalusa nimeṣam*" (8th sarga, verse 17).
Reverse—(a) Rādhā; (b) Kṛṣṇa; (c) Rādhā-Sakhī.

Folio 26 : Obverse—Left portion of the palm-leaf broken, thus one illustration is lost, Sakhī and Rādhā.
Caption : '*Mādhave mu kuru māninī manamaye*' (Sarga 9, verse 18).
Reverse—Text.

Folio 27 : Obverse—Text.
Reverse—Rādhā, Kṛṣṇa and Dūtī (*daśamasarga*).

Folio 28 : Text on both the sides.

Folio 29 : Obverse—Text.
Reverse—Rādhā, Kṛṣṇa; Dūtī and Rādhā.
Caption : (First line of the 11th sarga).

Folio 30 : Obverse—Text.
Reverse—(a) Rādhā and Sakhī.
(b) Rādhā and Sakhī.
(c) Purṇakuṁbha with four fishes as drawn before (an auspicious symbol).

Folio 31 : Obverse—Text.
Reverse—(a) Sakhī and Rādhā, flower plants.
(b) Sakhī, Māninī Rādhā and Kṛṣṇa sitting in a sofa—flower and plants.

Folio 32 : Obverse—Text.
Reverse—(a) Ratikrīḍā.
(b) Rādhā alone.
(c) Kṛṣṇa and Rādhā.
(d) Kṛṣṇa importing Rādhā, Sakhī.

Folio 33 : Text on both the sides.

Folio 34 : Obverse—Text.
Reverse—(a) Rādhā-Kṛṣṇa ratikrīḍā } in different
(b) Rādhā-Kṛṣṇa ratikrīḍā } poses or
(c) Rādhā-Kṛṣṇa ratikrīḍā } bandhas.
(d) Kṛṣṇa and Rādhā sitting.

Folio 35 : Obverse—Text.
Reverse—Rādhā-Kṛṣṇa ratikrīḍā.

Folio 36 : Obverse—Text.
Reverse—(a) Rādhā and Kṛṣṇa standing.
(b) Rādhā-Kṛṣṇa ratikrīḍā.
(c) Rādhā-Kṛṣṇa ratikrīḍā.
(d) Rādhā and Kṛṣṇa engaged in conversation.

Folio 37 : Obverse—Text.
Reverse—Sakhī is taking Rādhā to Kṛṣṇa through wooded forest in one section : In the next, Kṛṣṇa waits impatiently; in the third he sits pointing to an empty bed.

Folio 38 : Reverse—(a) Rādhā-Kṛṣṇa ratikrīḍā }
(b) Rādhā-Kṛṣṇa ratikrīḍā } in different postures
(c) Rādhā-Kṛṣṇa ratikrīḍā }
(d) Haṁsa-haṁsī rati.
Flower plants. Rādhā-Kṛṣṇa and Sakhī. Significantly, now Kṛṣṇa assumes divinity and is depicted with four arms.

From the above description and the brief comments, it will be clear that while in Folios 2 and 3, the painter depicts the ten *avatāras*, in the other she tries to capture the essence of the mood.

Folio 5, for example, is a pictorial rendering of the verses which describe Kṛṣṇa's dance with the gopīs. In the painting, the artist endeavours to situate Rādhā alone so as to suggest that the dance is in her mind's eye and not a actual scene.

Folio 12 recreates the mood of love of sarga 3 by making Kāmadeva sit under a *toraṇa* shooting his arrows and Kṛṣṇa in another section afflicted by them. The *mayūra* and the *haṁsa* and *haṁsinī* of the poetic phrasing become the pictorial figurative delineation of the painting. In Folio 3, the painter transforms the verses *nindati candana* into a pictorial situation where the sakhī fans Rādhā, who finds even moon-beams unbearable. In the next section, Kṛṣṇa's remorse is graphically portrayed by the Sakhī speaking to Kṛṣṇa.

In Folio 20, the painter takes the twelfth *prabandha* of the sixty sarga and treats each verse separately. The poem describes the state of Rādhā, her looking askance at the empty bed, her attempt at writing a letter, her tears and weeping and finally, her desolation. The painter in turn portrays Rādhā five times each time in a different posture. The mood is gradually built from frame to frame, till the final anxious waiting of Rādhā for Kṛṣṇa is evoked. Folio 14, 15 and 20 are splendid examples of this device of recreating the poetic imagery in pictorial terms, verse by verse or even line by line. This device is characteristic of the eastern schools, for we encounter it again in the Assamese *Gīta-Govinda* by Kavichandra Rāmanārāyaṇa (18th Century). Wherever necessary the painter introduces foliage, dance

forests, vacant architecture in order to reinforce the feeling of desolation, long journeys and the passage of time. Off and on, the well-known objects of ritual symbolic of either union or separation are incorporated. The inclusion of the two fish and the *purṇaghaṭa* in Folio 19 is one such example.

From Folios 35 onwards, we see the portrayal of the last sarga of the *Gīta-Govinda*. *Prabandhas* 22, 23 and 24 have given rise to a variety of interpretations in poetry, painting and music. In the Rajasthani schools especially in the N.C. Mehta set and in the Bundi *Gīta-Govinda*, we find a Rādhā placing her foot on a dimunitive Kṛṣṇa. This is followed by a sensitive delicate rendering of the verses *priyā cāruśīle* and *kura yadunanda*, where invariably it is either Kṛṣṇa drawing close to Rādhā or Kṛṣṇa adorning Rādhā exactly as described by Jayadeva In the Orissan eighteenth century and nineteenth century sets, these *prabandhas* give rise to an erotic rendering. Where the verses of the *Gita-Govinda* are understood on the plane of eroticism rather than sensuousness, the text provides opportunities for both. The verses which speak of Rādhā's loving Kṛṣṇa as a man are particularly popular with the Orissan painters of the IInd and IIIrd phases. Indeed, many of these painters can be dated and placed in a chronological order by the analysis of only these scenes normally called *ratikrīḍā* or *bandha*.

In the figurative drawing, the manuscript reflects a great capacity to introduce a sense of staticness and movement merely through a stance or a pose. While the profile is constant, there is a fair range of standing, sitting and lying poses and postures. Wide open positions reminiscent of the *maṇḍala sthāna* of the *Nāṭyaśāstra* or the *Chauka* of Orissi school of dance are common. Frequent also the various sitting postures. A close scrutiny reveals that they are in fact, in continuation of the several postures seen in the sculptures of Konark and elsewhere. They continue to survive in portions of Orissi dance.

Although the range of flora and fauna is limited, here also the painter does exhibit a capacity to use the phenomenon of nature for emotive purposes. The inclusion of doves, birds and animals is a device to recreate the moods.

The tradition of pictorial interpretation of the verses continues well into the eighteenth century but there is a marked change in the figurative drawings. This will be clear from a comparison of manuscripts No. 46 and 44 with manuscripts Exhibit Nos. 24 and 35.

S. NO. 4862, EXHIBIT NO. 35

Palm leaf manuscript of the *Gīta-Govinda* with illustrations presented by G.N. Das Goswami of Sarangamatha, Ghantimunda, P.S. Tangi, Dist. Cuttack.

Originally the complete manuscript contained thirty folios, but at the time of acquisition, it contained 17 folios only. The missing folios being 13 : 1 to 7, 9, 10, 12, 15, 19, 20. It contains only the text not the translation. There is no colophon indicating the date of the copy at the end. From the examination of the Oriya characters, it can be assigned to the beginning of 18th century (A.D. 1720). This is a beautiful manuscript, with very clearly defined lines and fine draughtsmanship.

Description of Illustrations

Folio 8 : Rādhā and Sakhī under a *toraṇa*.

Folio 11 : Obverse—Rādhā under a *toraṇa*, sofa like thing Rādhā and Sakhī.
Reverse—Rādhā and Sakhī.

Folio 13 : Obverse—Rādhā and Sakhī.
Reverse—Kṛṣṇa in a sitting posture, text and then Rādhā and Sakhī.

Folio 14 : Obverse—Rādhā sleeping on a bed in despondency.
Reverse—Kṛṣṇa in erotic posture, in ratikrīḍā.

Folio 16 : Obverse—Eight figures; in each Kṛṣṇa is adorning the women. In one he holds her foot. There is great vigor in these paintings (Pl. CVIII c).
Reverse—Text followed by Kṛṣṇa and two gopīs (Pl. CVIII d).

Folio 17 : Obverse—Candra, Rādhā, depicting candranindā. Inside the tree is drawn a moon.
Reverse—Rādhā under a *toraṇa.*

Folio 18 : Obverse—Rādhā and dūtī.
Reverse—Rādhā and dūtī.

Folio 21 : Obverse—Rādhā, Kṛṣṇa and Sakhī.
Reverse—Rādhā and Sakhī.

Folio 22 : Obverse—Kṛṣṇa reclining.
Reverse—Three ladies on one side, one archer on the other side. There is kandarpa shooting his arrows.

Folio 23 : Obverse—Rādhā reclining over on a sofa and talking with dūtī.
Meṣa yuddha, Prabhari yuddha, Kukkuṭayuddha.
Reverse—Kṛṣṇa, Rādhikā, meeting of Kṛṣṇa and Rādhā.

Folio 24 : Obverse—Rādhikā and Sakhī.
Reverse—Rādhikā and Sakhī.

Folio 25 : Obverse—Mayūranṛtya (dancing of peacock), Rādhā, dūtī and Kṛṣṇa.
Reverse—Kṛṣṇa under a kadamba tree—two deer roading under it. This is one of the finest portrayals of Kṛṣṇa. With a few sure strokes, the mood is captured (Pl. CIX a).

Folio 26 : Obverse—Rādhā-Kṛṣṇa.
Reverse—Two elephants on one side of a tree, One elephant and three deer on the other side.

Folio 27 : Rādhā-Kṛṣṇa facing an empty bed.

Folio 28 : Viparīta-bandha, two other bandhas, Hasta-pada bandha (Pl. CIX b).

Folio 29 : Four *toraṇas,* Rādhā-Kṛṣṇa Yugal under each *toraṇa.*
(a) Kṛṣṇa putting vermillian on the forehead of Rādhā.
(b) Kṛṣṇa arranging the hair of Rādhā.
(c and d) Kṛṣṇa adoring Rādhā.

Folio 30 : 'One Paṇḍita' and 'Jayadeva'.

Colours used : In these illustrations, deep red and black colours and light yellow and green colours have been used. The colours have not faded.

Exhibit No. 24 : Obviously belongs to the late eighteenth century. It has 25 folios measuring 30×4 cms. The figures have become much more rotund in this manuscript. There is a greater attempt at filling in spaces through doodling and large dark patches are evident. There is much more clothing and Rādhā has a bun at the nape of her neck. The male figures appear with moustaches and there are wide open positions. The earlier delicacy gives place to an ornateness and an amazing virility. The profile continues but the nose becomes sharper. Demons, such as Madhu and Mura appear abundantly. Crossed-breast plates of women are frequent. Vegetation is more lush. It will be observed that the manner of drawing the figures, the face, the dress, costuming and coiffure have considerably changed. In Exhibit No. 46 and 44, there was no upper *oḍhanī* thrown across the chest. Nor were the details filled in with sharp doodling strokes. In the second Phase, this becomes a characteristic feature. The figures are short and squat, although long strides and open positions of the *charak* and the *ālīḍha* continue.

Phase III—The final phase of Orissan painting is that of paper manuscripts. The manuscripts in the National Museum, with the scattered folios in the Bhārat Kalā Bhavan and Jagdish Mittal Collections, appears static at first sight. However, a close look reveals that these paintings were to be viewed like

individual frames of a moving picture and there is just a slight change from one frame to the other. The colours are vivid and the figures are surrounded with decorative floral decoration. The figures are also richly clad, although the pose and the stance is some better one or the other are clear.

To this late phase also belong many examples of the *Gīta-Govinda* which fold out into the Jagannāth Temple design. Largely these contain only the *Daśāvatara* figures. Also to this period belongs a beautiful *Gīta-Govinda* in a garland form and yet another in the phase, of a flower on a tapering palm leaf. A *Gīta-Govinda* on ivory leaves also belongs to this period.

Although a fuller delineation of all the *Gīta-Govinda* illustrated manuscripts from Orissa is contemplated in an independent monograph, this sampling will give some idea of the rich storehouse of *Gīta-Govinda* illustrated manuscripts from Orissa.

REFERENCE

1 Barrett, Douglas and Gray, Basil; *Painting of India*, pp. 72-73. Illustration on Page 73. Gopīs on the bank of the River. Jamuna. They date at A.D. 1550.

XLVII

New Trend in Art : Music through Mosaic

S.V. VADNERKAR

Visual Art helps in recording historical situations and contemporary events but the technologically oriented visual art helps in ascertaining truths about assumed assumption in decorative form. The manipulated visual art 'Music through Mosaic' by coherent aspects of art, architecture, music and its education, is a boon to the society.

Reader will find that, it is a research through analysis to synthesis by artistic architectonic approach, using the rich notation as a resources to render and to decorate in living room and the facades of building in an exhibit form, which is a step-ahead to *Rāgmālā* painting.

Man is curious, skeptical, busy. He cannot let well enough alone. Somehow he could not remain a simple cog in the machinery of nature. Skins lead to textiles, grass to timber and masonary stone to iron. Every step toward art. Art is defined as a skill.

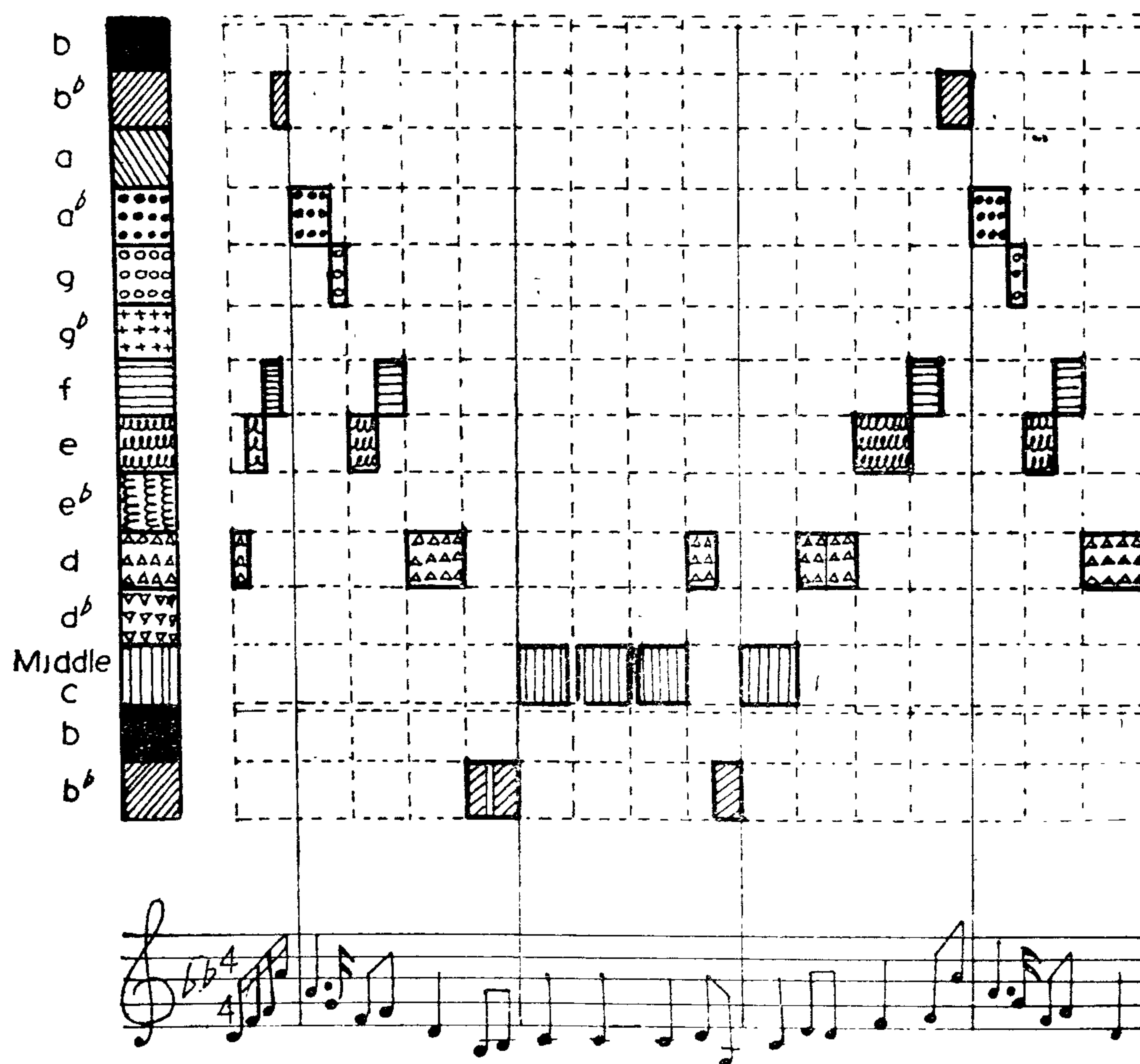
Art, as the human urge to create and improve and is always at the forefront of change. Art is not transfixed, it is a fountain rising and falling under varying pressure of social conditions. Man is the only known force; capable of conscious choice and decision and therefore of control of future directions for development. It is only man's creative urge: his imagination, restlessness and dissatisfaction, with the *status quo* that lifts him constantly out of and beyond nature; *e.g.* *Werk*—Ugli uneven surface enriched by cones of mud.

The history of development of visual art shows spectator that several scenes of different subjects and textures and abstract patterns were depicted by artist and architects of past and present to enrich wall surfaces but music was never depicted to communicate through decorative art.

Technological developments are having a profound effect on the every day life of man. Modern methods that are available to us were not known to our predecessors. Technological developments if properly utilised, may useful in understanding and acquiring maximum knowledge.

"Learning and communication is no longer linear." This is one of the provocative theories of Prof. Marshal McLuhan, the Canadian Philosopher of the Space Age. He argues that, to-day, with the communication explosion people are learning through mosaics or through colleges of several impressions put together. Time, was, he said, when all human learning and communication were linear and individual. But the man media such as news papers, the radio, T.V., the film have changed the position. The new educational tools are multi-dimensional. The stress is on audio-visual image and the implosion of ideas.

Pictorial art, sculpture, architecture have served to interprete and record aspects of human activities over thousands of years. Over a much shorter period musicians have prepared their scores according to which their music can be performed. There has been considerable interest among occidental artists during past decades to find relationship between painting and music. The composers have used visual art as a source of inspiration, *e.g.*, there is the Piano Suite "Pictures from Exhibition" by Munorgsky. Possible co-relation and relationships have been of particular concern to those who are working with Kinetic art.



Standard notation	Code symbols
Whole note	
Half note	
Quarter note	
Eighth note	
Sixteenth note	

The duration of rests or silences are indicated by the same symbols, with the squares and rectangles in white

Fig. 41. Construction and Code for rendering musical notation.



a. Nāgajātaka—Bharhut (Indian Museum).



b. Gajendramokṣa—Deogarh.

GAJENDRAMOKSA



a. Gajendramokṣa—on a pillar, Virūpākṣa Temple, Pattadakal.



b. Gajendramokṣa on a pillar, Mallikārjuna Temple, Pattadakal.



c. Gajendramokṣa, on a pillar, of north side, Papanatha Temple, Pattadakal,

GAJENDRAMOKSA



a. Gajendramokṣa, on wall, Bucheshvara Temple, Koravangala (Hoysala).



b. Gajendramokṣa—Rajasthani painting (Reproduced from *Rajput paintings*, Pl. XVI). →

AMARĀVATĪ



a. Chaturmukhaliṅga—East face.



b. Chaturmukhaliṅga—South face.

AMARĀVATĪ



a. Chaturmukhaliṅga—West face.



b. Chaturmukhaliṅga—North face.

LAKULISA PASUPATISM

BHITA



a. Liṅgaṁ—Front view.



b. Liṅgaṁ—Rear view.



c. Liṅgaṁ—Left side view.

Virinchipuram Panchamukhalingam—Margasahayesvara Temple



a. East face.



b South face.



a. *Virinchipuram*—North face of Panchamukhaliṅgaṁ.



b. *Mukhalingam*—Ekamukhaliṅgaṁ.

LAKULISA PASUPATISM

Mukhlingama—Views of Lakulisa



a. East face.



b. South face.

Plate LXXXIV

LAKULISA PASUPATISM

Mukhalingam—Views of Lakulisa



a. West face.



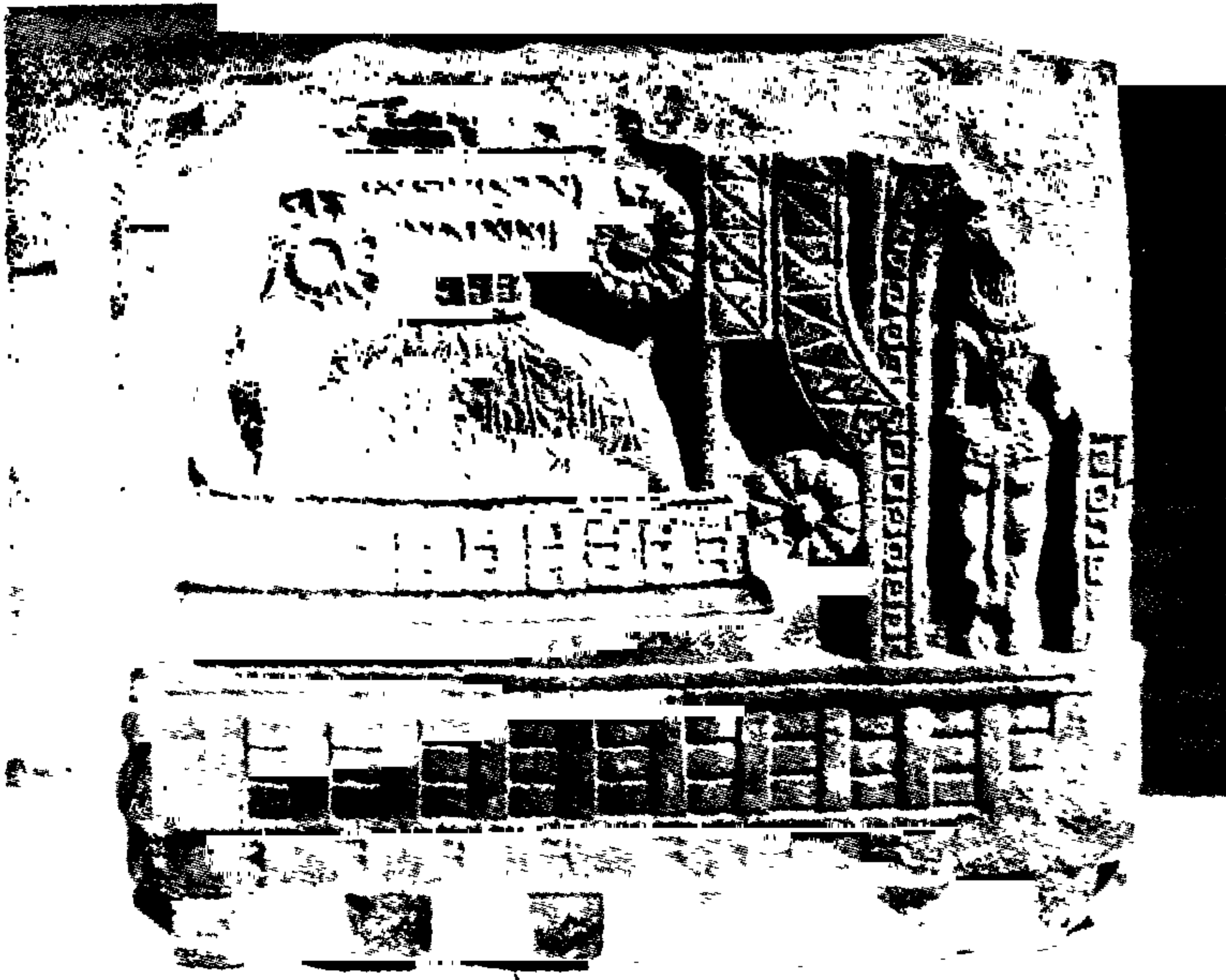
b. North face.



a. Siddhavatam : Lakulīśa.



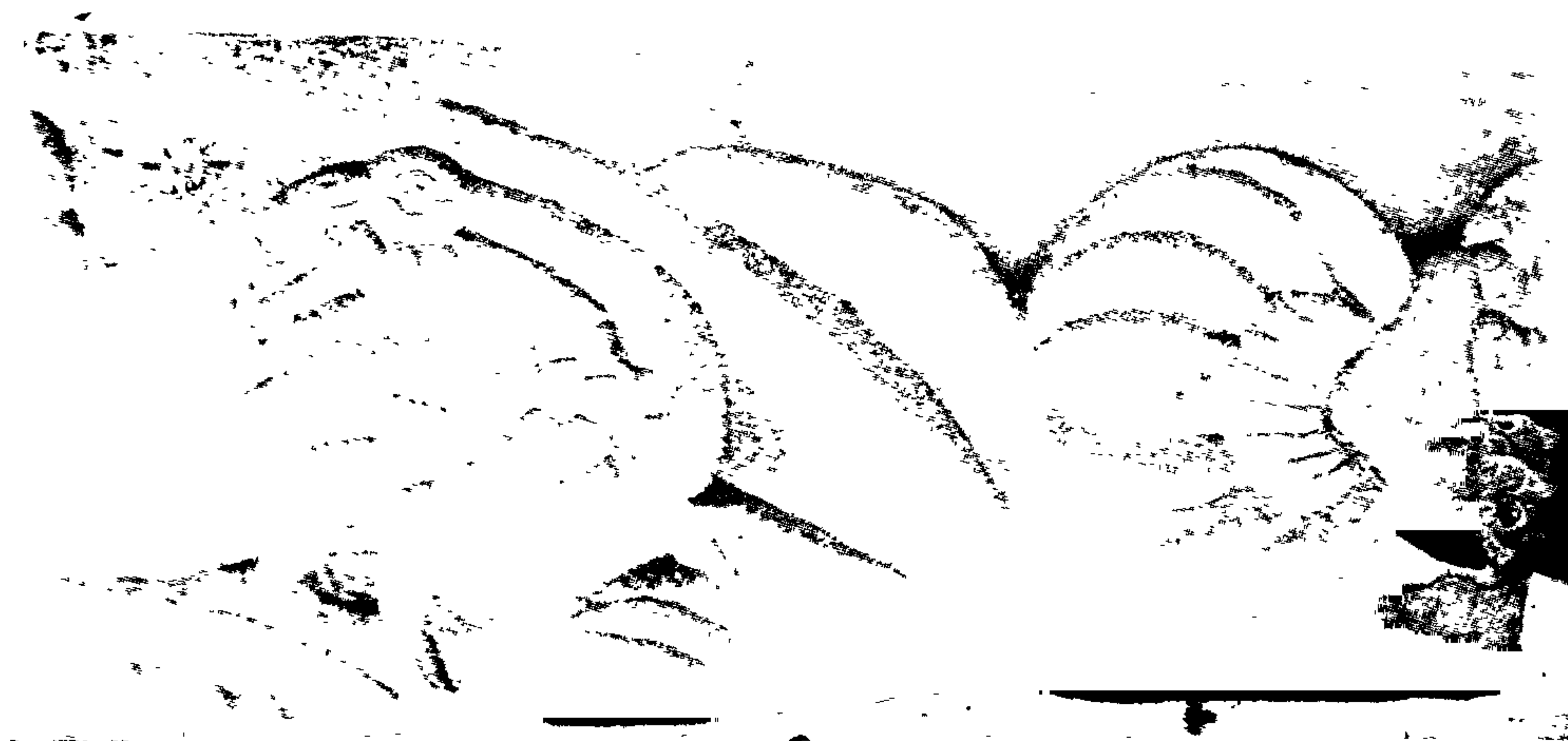
b. Perur : Lakulīśa.



a. Fragment showing a stūpa and an arched gateway (Śuṅga—*c.* 2nd Century B.C.).



b. Fragment showing *Śāla* Tree in blossom.



c. Fragement showing lotus creeper and geese.



a. Buddha in cave 4, group-1.



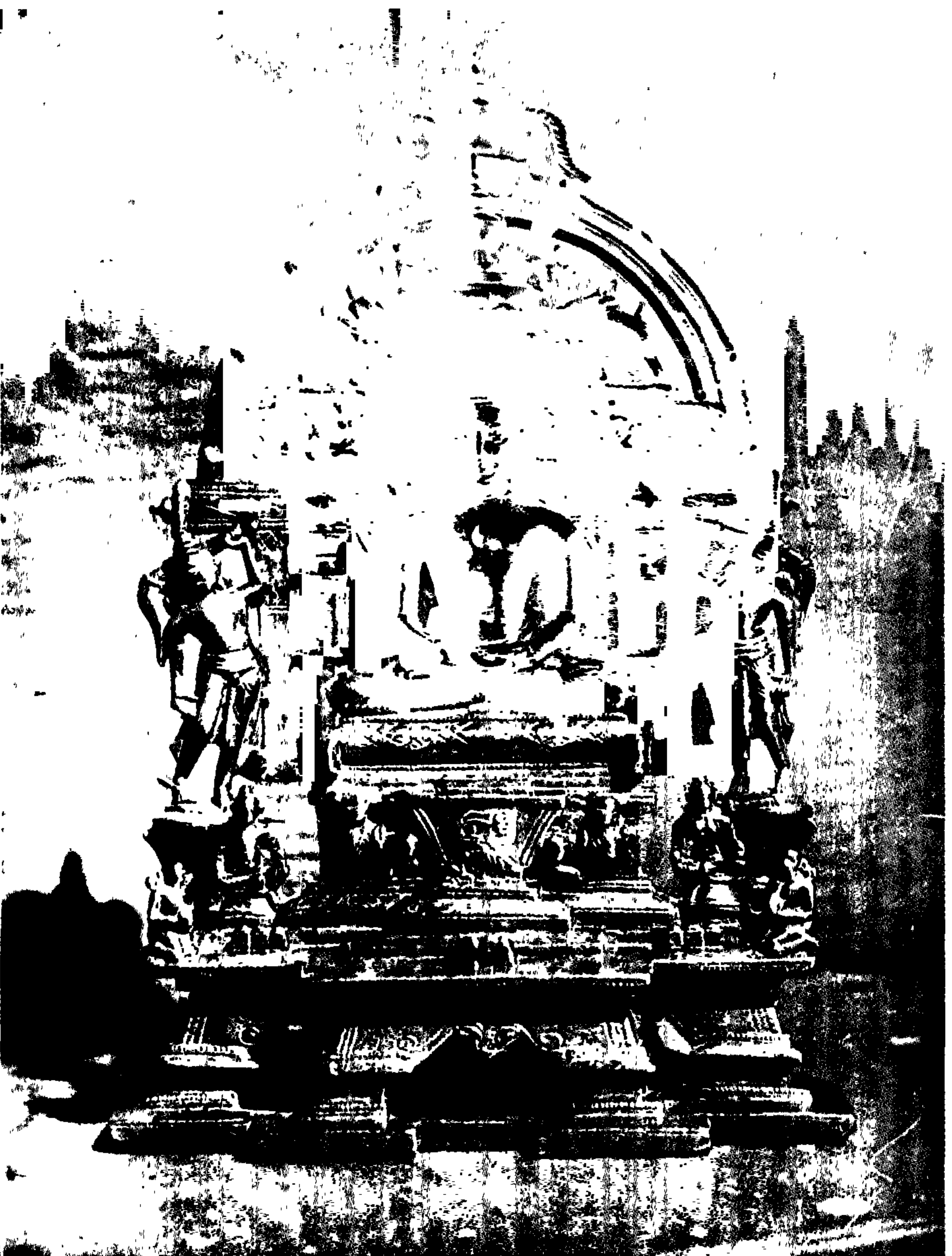
b. Close up of the above.





c c-d. Close up of sculptures on either side of the Buddha. d

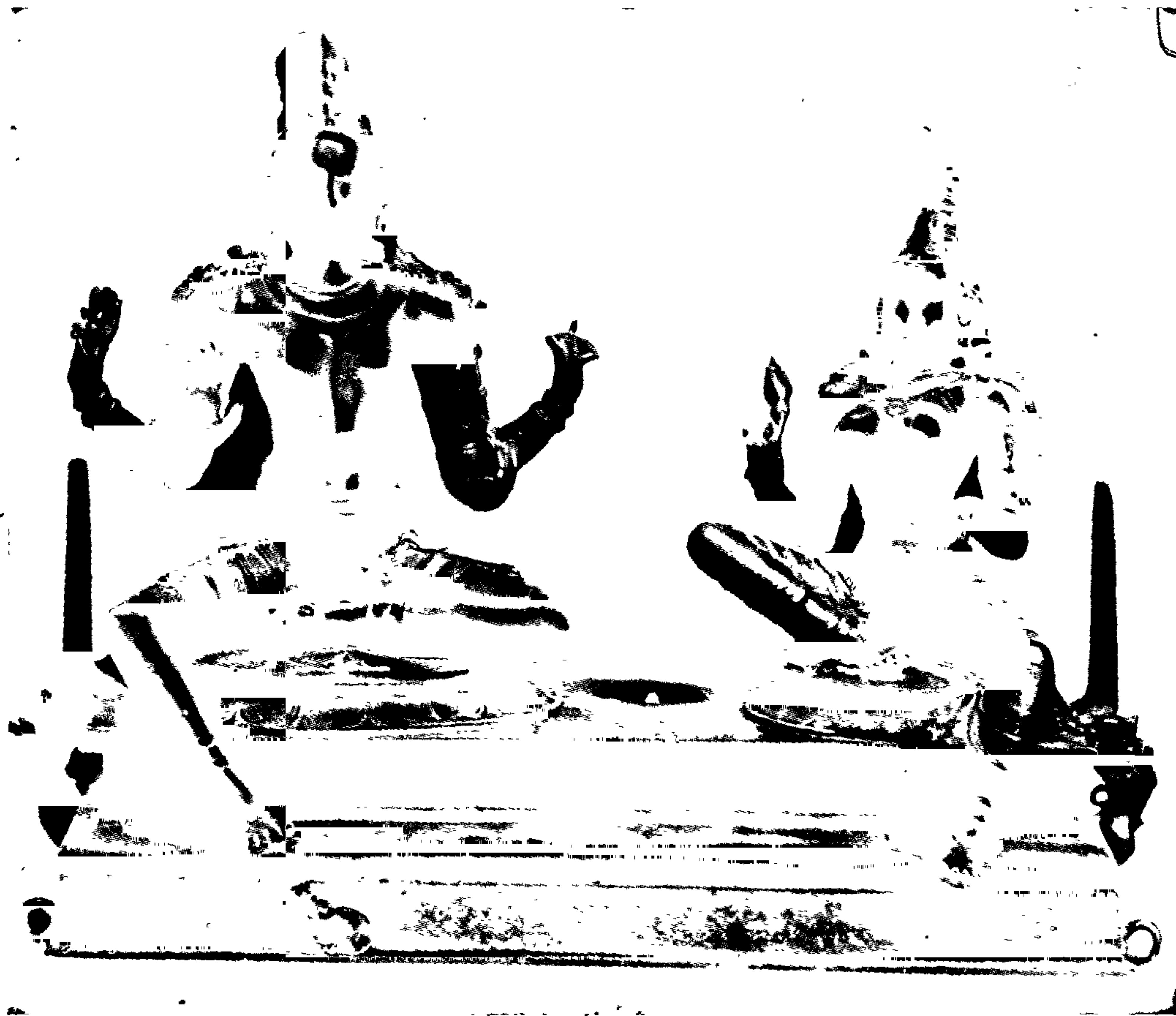
Plate LXXXVIII



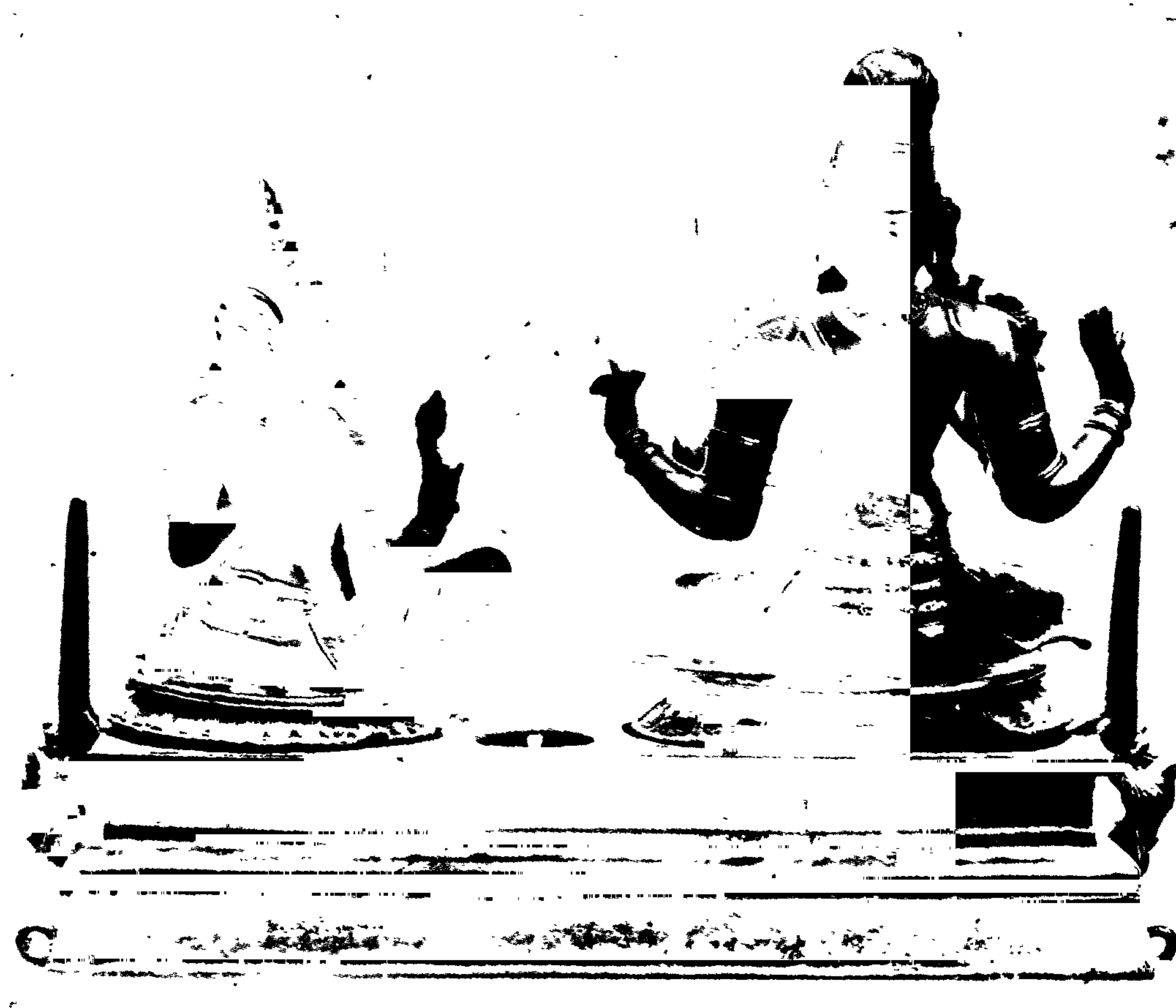
a. Śāntinātha bronze—front view.



b. Inscription at the rear side.



a. Somāskanda—Front view.



b. Somāskanda—Rear view.

BRONZES FROM KARNATAKA



a. Chandraśekhara—Front View.



b. Chandraśekhara—Rear View.

BRONZES FROM KARNATAKA



a. Pārvatī from Somāskanda group—detail.

b. Chandraśekhara—detail.

SIVA-GANGADHARA—RANGMAHAL



a. Śiva-gaṅgādhara—Terracotta.



b. Detail of the above.

HARIHARA FROM JOGESVARI



a. Torso of Harihara—6th Century A.D.



b. Crown of Harihara.



c. Crown of Harihara—detail from an angle.

HARIHARA FROM JOGESVARI



a. Reconstructed Harihara (face only).



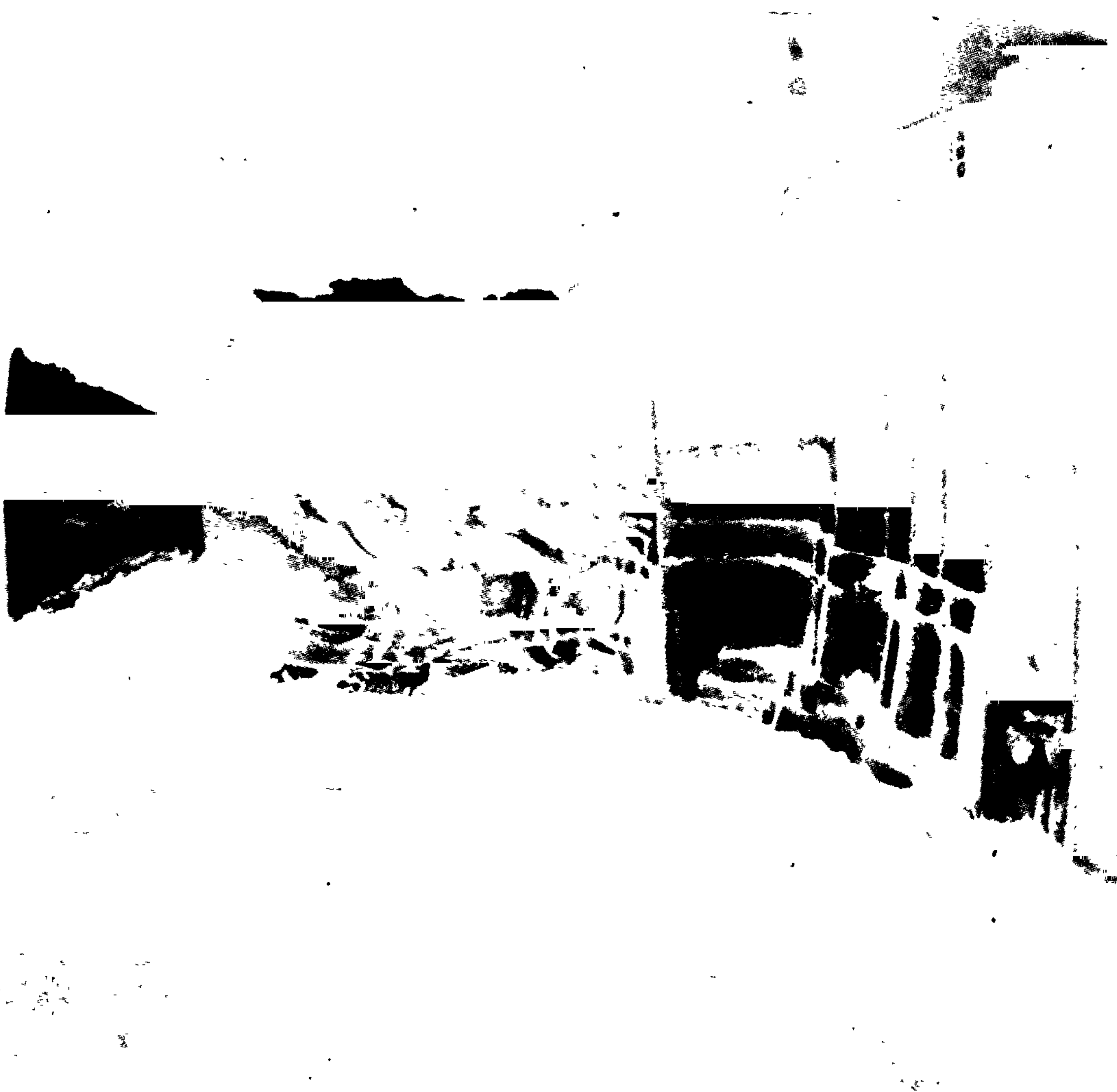
b. Trivikrama from Elephanta.

a. Vaiśravaṇa and guardian figure—Fondukistan (copy by Carl).



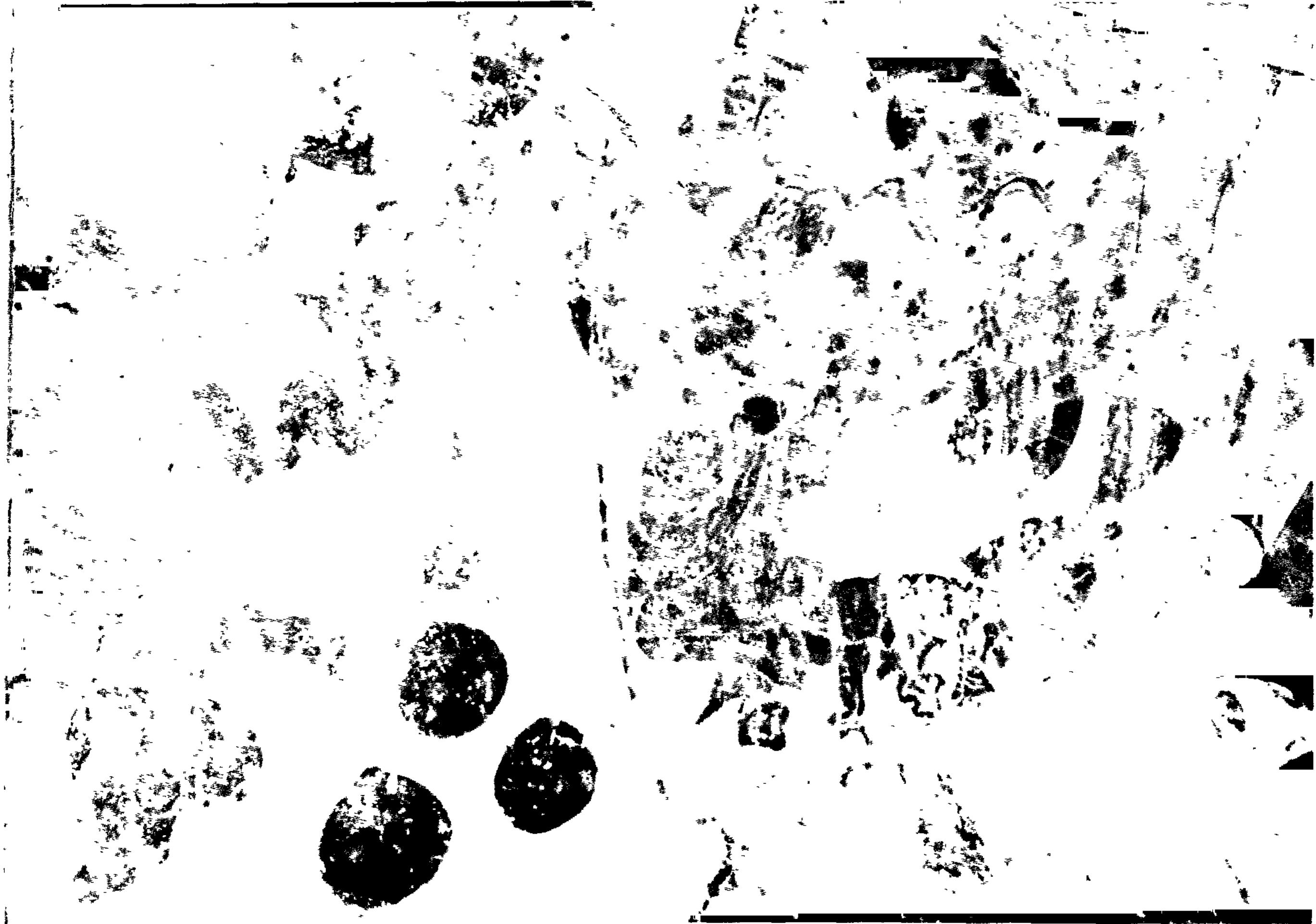
b. Sketch, Bamiyan Buddha with crescents in 35 metre Buddha Niche.







a. Bamiyan, 53 metre Buddha—West side.



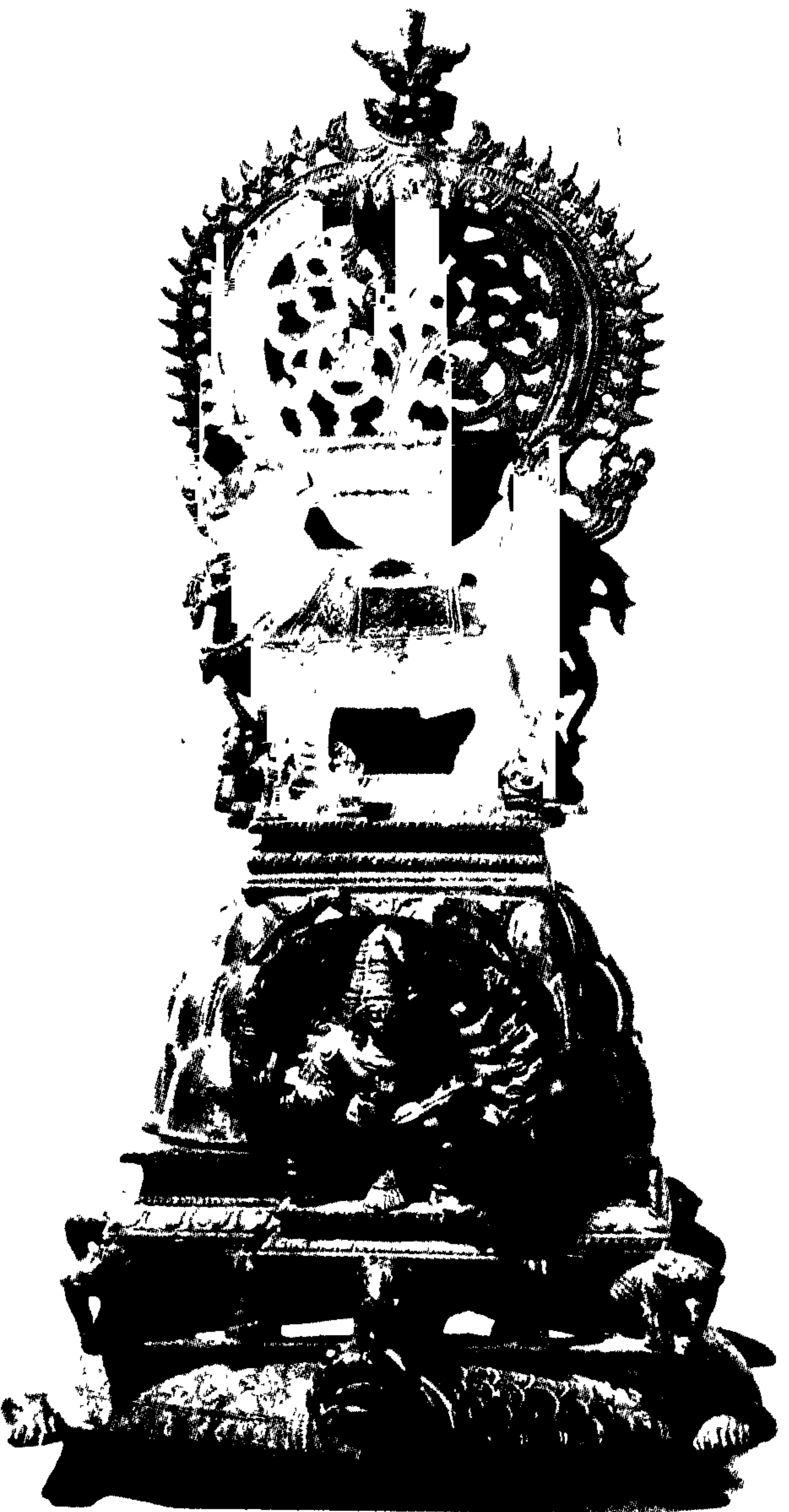
b. Bamiyan, 53 metre Buddha—East side.



a. Kushana coin—Kanishka.



b. Pharo and Adoxso, Peshawar Museum (Pakistan).



a. *Rāvanānugrahamūrti*—Nāyaka period 17th Century A.D.



b. *Rāvananugrahamūrti*—Nāyaka period 17th Century A.D. view from side.



Rāvanānugrahamūrti—Traditional painting—Tanjore School (National Museum, New Delhi).



a. Donor-couple wearing Siṁhakuṇḍala—Kanheri.



b. Inscribed Kubera—with Siṁhakuṇḍalas (Mathura Museum).

SIMHAKUNDALAS



a. Viṣṇu from Uttar Pradesh, now in Bangalore Museum.

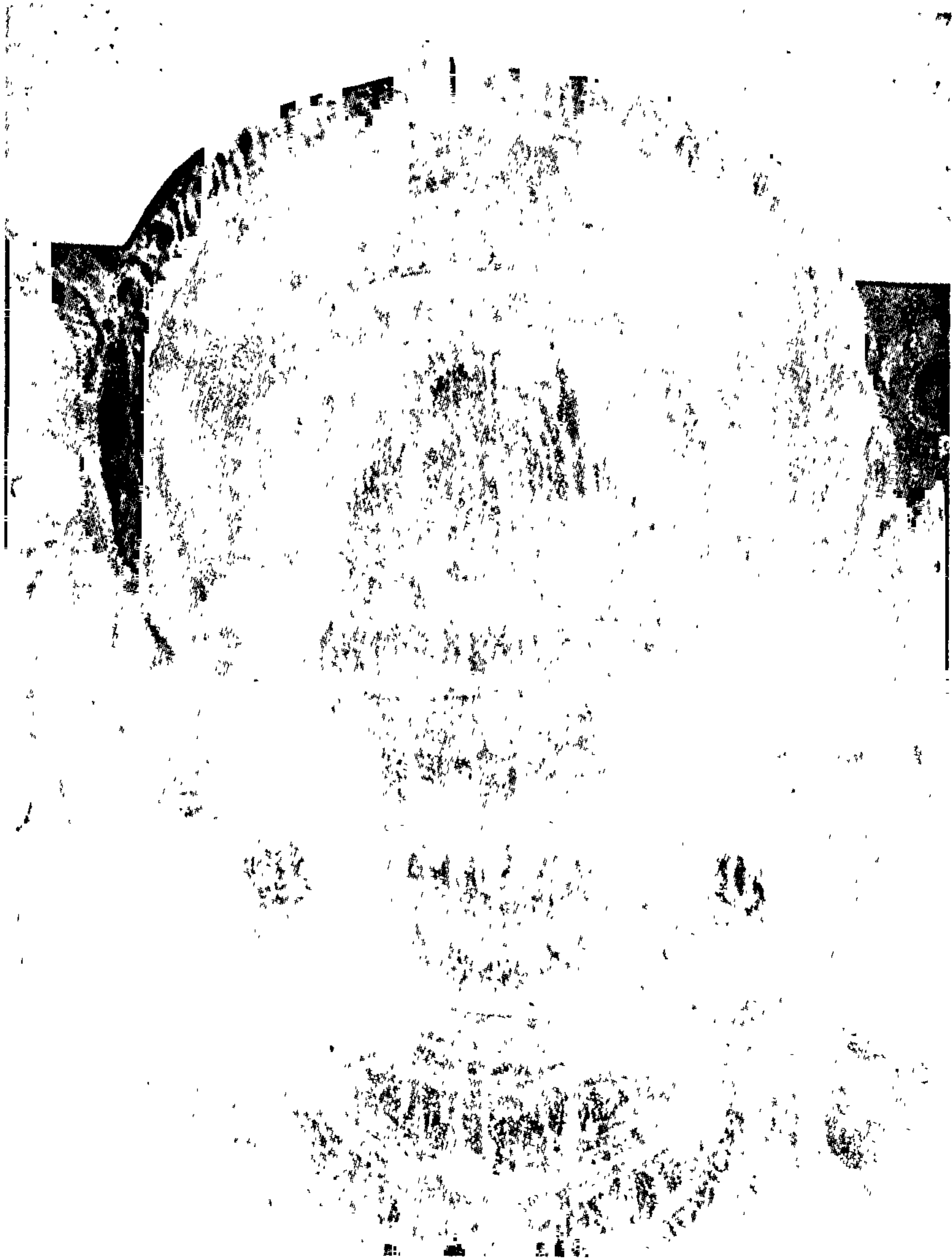


b. Viṣṇu from Uttar Pradesh, now in Bangalore Museum – detail showing Siṁhakuṇḍals.

SIMHAKUNDALAS

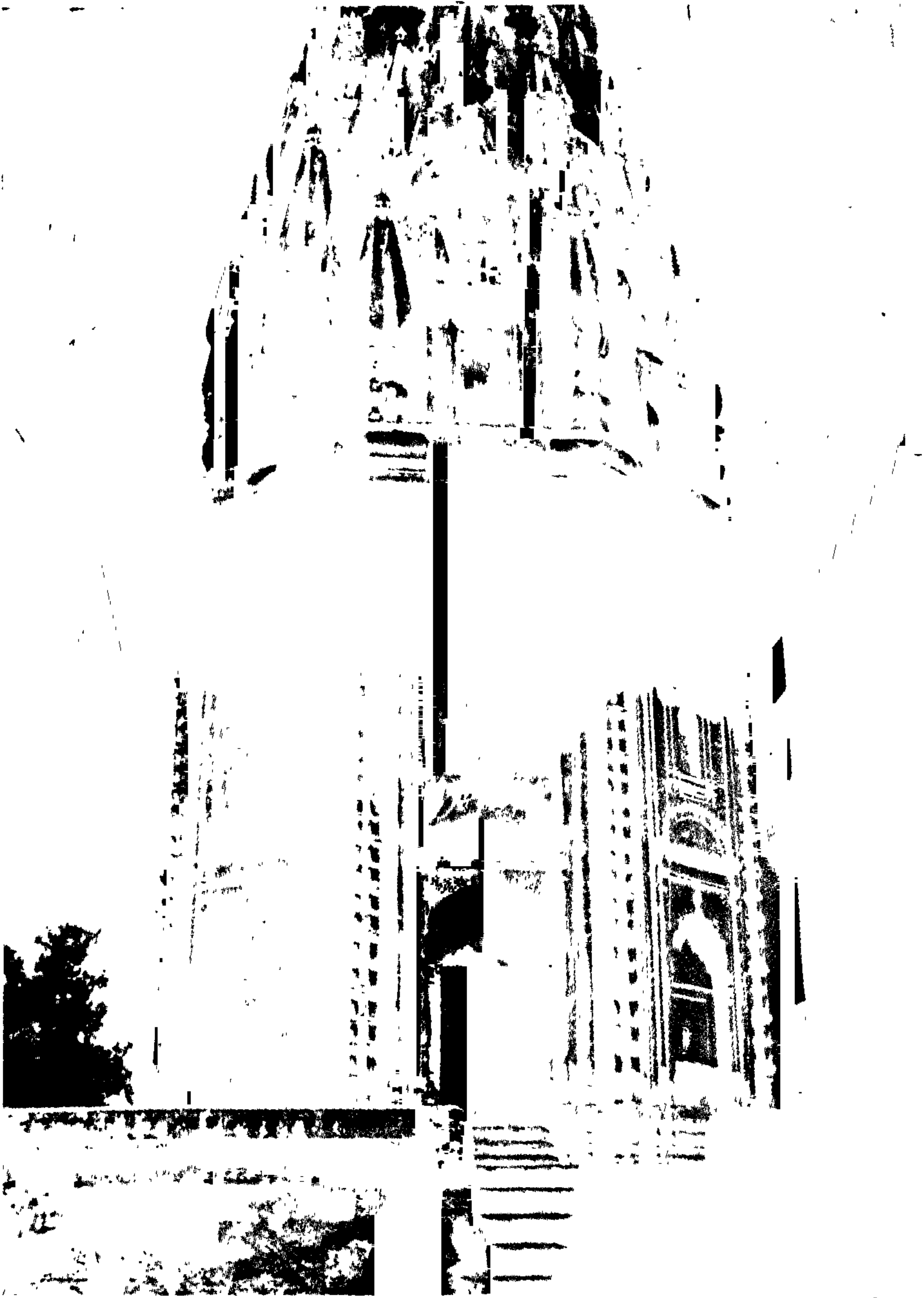


a. Wooden dvārapāla—Kerala, now in Bangalore Museum.



b. Wooden dvārapāla—Kerala, now in Bangalore Museum—detail showing Siṁhakuṇḍalas.

HISTORICAL PAINTINGS—RAJAMAU



a. Śiva Temple—with murals—General View.



b. Śiva's marriage procession (probably based on Tulsī Rāmāyaṇa).



↑ a. Coronation of Rāma—Central panel.

↓ b. Coronation of Vibhīṣaṇa.



Plate CVI

HISTORICAL PAINTINGS—RAJAMAU

a. Corner Panels depicting—*Putana Vadha*, *Rāsalīlā*, *Ardhanārīśvara*, *Warrior*, *Malla* and Wajid Ali Shah (?) on horse back.



b. Rāṇi Lakṣmibāi of Jhāṅsi on horse back (?).



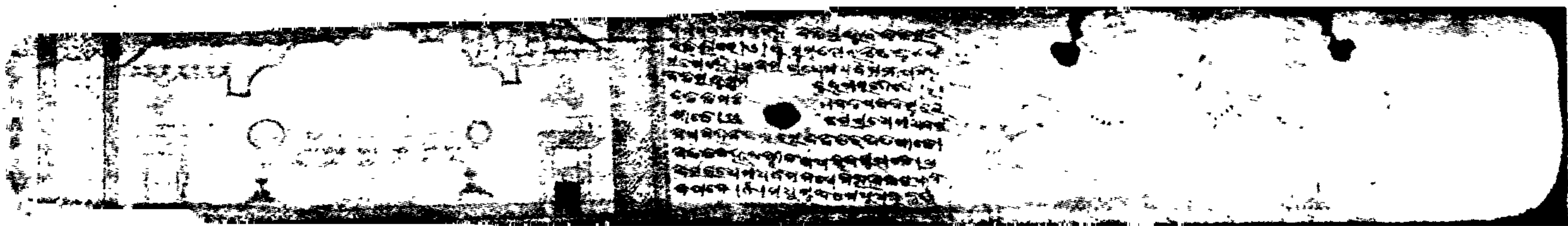
a. An encounter between English Soldiers and an India (probably Maratha) horse-rider.



b. *Ananta Śāyī Viṣṇu*, *Putana Vadha*, and scene from a drama of Wajid Ali Shah of Lucknow.



a. Folio 5B Exhibit No. 46—Phase I.



b. Folio 29A Exhibit No. 24—Phase II.



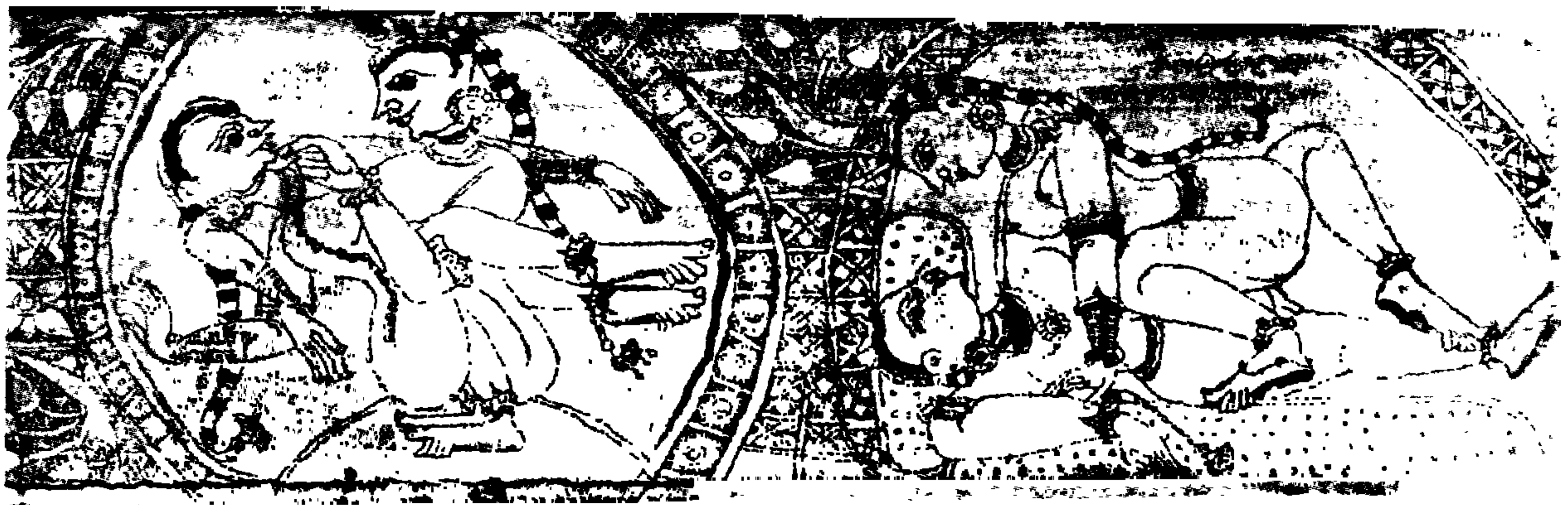
c. Part of folio 16A Exhibit No. 35—Phase II.



d. Part of folio 25A Exhibit—Phase II.



a. Part of Folio 25B—Phase II.

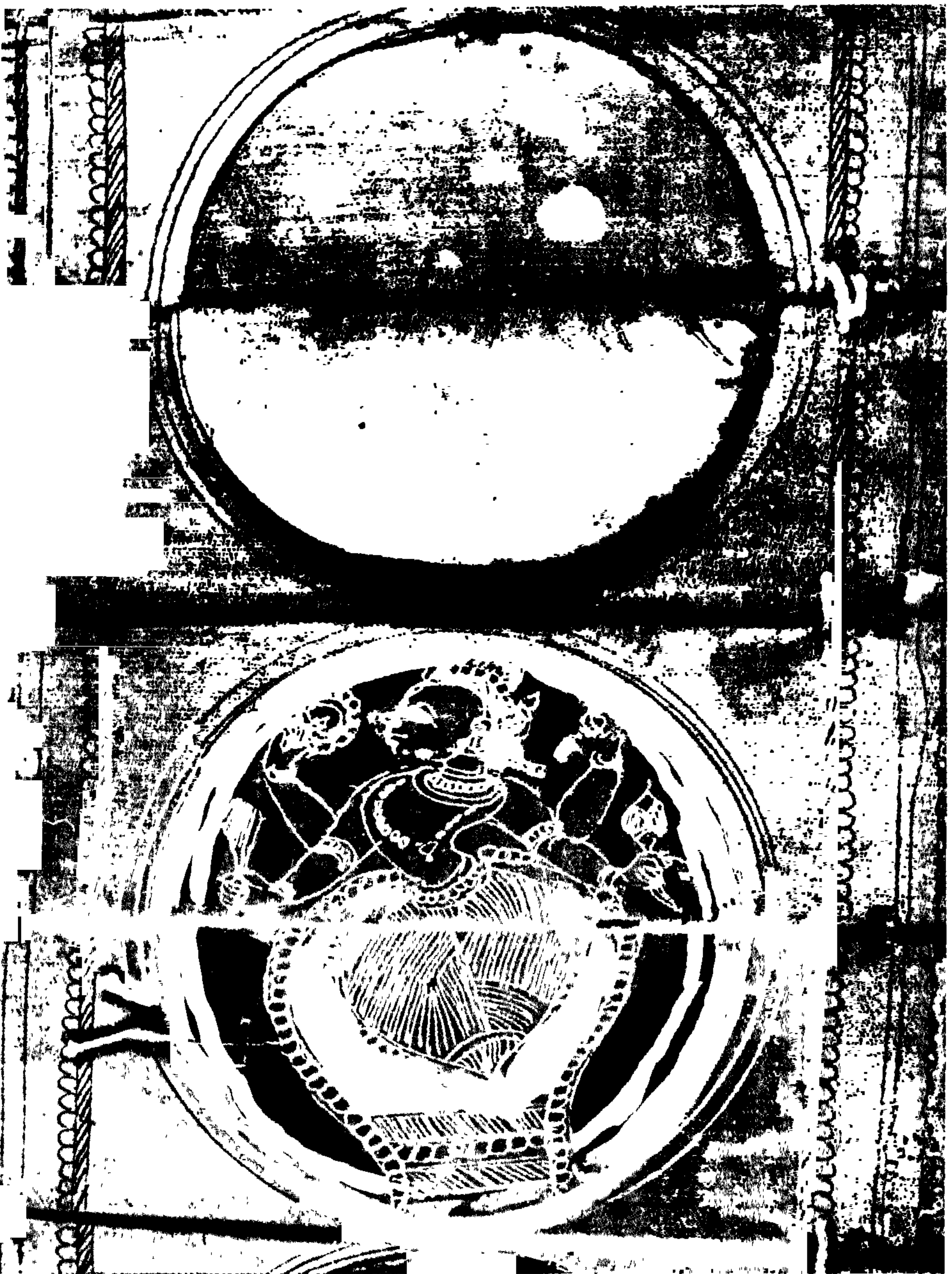


b. Part of folio 28B—Phase II.



c. Details of Rādhā—Phase III (Raghunandan Library, Puri).

GITA GOVINDA MANUSCRIPT FROM ORISSA



a. Exhibit No. 4—Phase III.



b. Exhibit No. 15, close up of inscription of Gīta Govinda as a garland—Phase III.

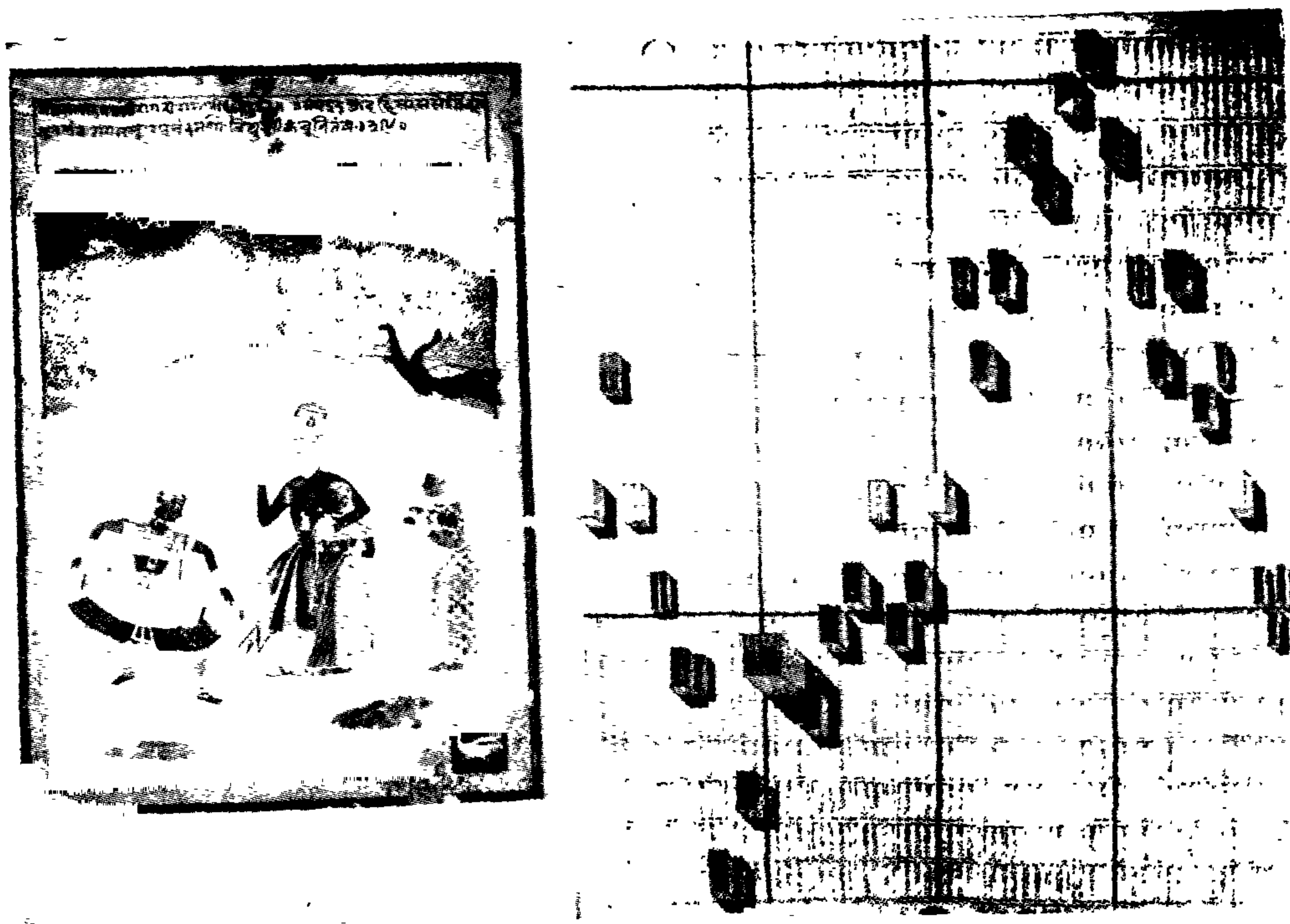
GITA GOVINDA MANUSCRIPT FROM ORISSA



a. Paper Manuscript (National Museum, New Delhi)—Phase III.



b. Paper Manuscript (Bharat Kala Bhavan, Varanasi).



a. Ragu Mathar and basic structure of Tune in Architectionic 3D Texture.



b. A sweet melodious tune composed by Mozart on external facade of a house.

Abstract art plays important role in moulding environment. L. Courbusion Paintings and relief have explored outlook for modern art in architecture.

There was a change in philosophy of modern art—Truth rather than beauty—Art should not merely entertain in form but educate and enlighten.

As an Artist and Architect, I have been attracted to textures and materials used decoratively in non-figurative murals for buildings while such murals may please viewers, I find many of them convey little, if any, to them. It, therefore, occured to me that such murals might be used to present musical scores in a special code based on the standard occidental notation. The viewers might learn to interprete more easily and to enjoy. Simultaneously it will communicate and disclose aesthetic science of music by art conscious media.

Art encourages and creates interest in the society and particularly the above art will be helpful to understand and explain why the distinctive listening character occurs for Indian Classical *Rāgās* as well other types of world music. Pictorial analysis shows at a glance that like Greek order of Architecture, Indian Classical Music has order, arrangement, proportions. It also makes possible to remove doubts and diversified views and enable to do comparative study of planning and construction of Music. This system becomes scientific, logical, mathematical and intellectual. Art plays a major factor in cultural heritage and has a visual proof of creative activity.

The new novel work becomes a condominium visual art of Music, first of its kind in the history of world art and contributory outstanding creative research through analysis to synthesis of East and West Notation in common exhibiting code and explored new vistas to understand the complex subject by visual art. In learning and education meaning and methods differ. This new art also becomes an educative art for general education of masses.

In art and architecture ornamentation can be explained in terms of visual comfort and recording events but to-day artist's function is to awaken society for understanding educational/social values, through universal media. Art should not merely entertain in form but educate and enlighten.

Architect with his imagination visualised a pictorial art code and used the differences lied in two different scripts as resources to render in visual form and says, crores of images of musical meaning will help to enrich walls by architectonic ornamentation which will serve information theory, aesthetic of Music (Pl. CXII a-b and Fig. 41).

CONSTRUCTION

(1) Draw two horizontal lines keeping the distance of twelve squares one above other of approximate size (Size of square is flexible). This will demarcate the octaves. In between two horizontal lines *Madhya Saptak*. Below bottom line goes *Mandra Saptaka* and above top line goes *Tār Saptaka*. Square on bottom line *Madhya Sā, i.e.*, 'Middle C' and square on top line in *Tar 'Sā'* or c.

c''	सा
b	नी
♭b	नि
a	धा
♭a	ध
g	प
♯f	मा
f	म
e	गा
♭e	ग
d	रे
♭d	रे
MIDDLE C'	सा

Standard Code		Code symbols
Whole Note	𝅝	☐☐☐☐
Half Note	𝅗𝅥	☐☐
Quarter Note	♩	☐
Eighth Note	♪	◫
Sixteenth Note	𝅘𝅥𝅯	▥

(2) Vertical lines according to interval shows rhythm. If music is in *Tritāl* vertical line after four square and if music is in *Dādara Tāl* vertical lines after three squares.

The duration of rests or silences are indicated by the same symbols with the squares and rectangles in white.

With this Code and Coloured Index chosen by innovator.

Two *Rāgas Vilambit Gaṭ* is rendered in 3-C.

Rāgas—Basant and *Lalit.*

We get 3-D effect when horizontal value of notes introduced in projectional value.

E. Numismatics

XLVIII

A New Coin Type of Vasisthiputra/Mahaksatrapa from Junnar

SURESH VASANT

In December 1978, I had been to Junnar in connection with my studies of the rock-cut caves at the site. In the town I made inquiries with the goldsmiths and coppersmiths regarding ancient coins, which they often receive from local people and keep as scrap for melting. I was directed by the people to Shri Narayan Shridhar Mate, President of the Junnar Vikās Yuvak Maṇḍal, Junnar, Dist. Pune, who has a fairly big collection of coins belonging mostly to the Muslim/Marāṭhā period, viz., *taṅkās* or *Shivarāis*. A majority of his coins are of copper. After a careful examination of all the coins, the author could pick only one lead coin belonging to ancient period which deserves attention. The author is extremely thankful to Shri Narayan Shridhar Mate, who kindly handed over the coin to him for study.

It may be recalled that recently a silver coin of Sātakarṇi and Nāganikā was found at Junnar[1]. The present coin under study would be the second discovery at the site (Pl. CXIII a).

The coin is a surface find from Junnar; it was found on the north bank of Kukadi, on way to Gaṇeśa-Leṇi hill in 1972 along with yet one more similar coin at the same site. Shri Mate out of curiosity put the other coin in the kiln (*chullāh*) for cleaning, without realising that the metal was lead. The coin was unfortunately melted.

The coin in question was cleaned, in the chemical laboratory of the Department of Archaeology, Deccan College, Pune.

The coin under study is as follows :

Metal	: Lead; Shape : Round;
Diam.	: 2.5 cm (1 inch);
Thickness	: 3 mm (0.1 inch);
Weight	: 10.920 gms (168.495 grains);
Type	: Lion;
Obverse	: Brāhmī characters in Prākṛt. The legend beginning at IX reads, *Va si thi pu ta sa*. On the left is seen a *yūpa* set in rectangular platform which is slightly damaged along the flan. Below the legend is a lion, facing left with tail curved over his back. The lion is executed in bold relief and occupies nearly three-fourth of the space. Below the lion is seen three-arched hill in shallow relief. The lower portion of the hill is not clear.
Reverse	: Brāhmī characters in Prākṛt. The legend begins at X and reads *Ma hā kha ta pa sa*. On the left are seen a bow and an arrow, the latter pointing to left. The tip of the arrow is merged in the flan. Below the legend is a tree in railing which occupies nearly three-fourth of the space. The tree has seven branches arranged schematically, three on each side, one at top, with thick, solid pointed leaves. The railing consists of three uprights and a horizontal cross-bar (*sūcī*).

Palaeography : The script as already stated is in Brāhmī and the language is Prākṛt. The characters of the legend belongs to the alphabet of about the middle of the second century A.D. The letters are bold. The medial in the letter *u* on the obverse is shown by the elongation of the vertical. In the consonants *pa* and *ha*, the verticals are of the same height and parallel to each other and their bases are flat. It is curious to observe that the letters on the obverse are slightly thinner while on the reverse they are slightly bold, which is an indication of Kṣatrapa pen-style.

The coin although from surface is unique in many ways. The most perplexing point in respect of the legend is that it depicts two rival dynasties of the second century A.D. on the same coin. On the obverse it gives just the metronymic of one of the several Sātavāhana kings of the same name, while on the reverse is the title of the Western Kṣatrapas. Thus the mention of two ruling houses in the legends is enigmatic.

Typologically the coin can be classed as of the lion type. The symbols of lion, three-arched hill, tree in railing and bow with arrow are of common occurrence on Sātavāhana coins. But the *yūpa*, however, is rare. As regards the symbols no proper explanation could be given. They may be religious or secterian in character and attempts have been made to interprete them[2].

The significance of bow with arrow is not clear. It appears on the reverse with string downwards, fitted with arrow pointing upwards on the lead and potin coins of Vāśiṣṭhiputra, Mādhariputra and Gautamīputra of the Kuras which are found at Kolhapur[3]. It should be noted that the arrow on Junnar coin points to left.

The Kṣatrapa coins of Bhūmaka and Nahapāna on their reverse depict arrow and thunderbolt but not the bow as we find in the Kolhapur coins and also on the present Junnar coin. On Sātavāhana coins it is rarely found[4]. In the Nāsik inscription, Gautamīputra Sātakarṇi has been referred to as *'ekadhanudharasa ekabamhaṇasa'*.[5]

The lion could be a symbol of sovereignty and often found on some of the Sātavāhana coins, viz., Śrī Sātakarṇi, Vāśiṣṭhiputra Puḷumāvi (II), Vāśiṣṭhiputra and Sātakarṇi IV[6], which in workmanship is inferior or stylized. However, the lion on Junnar coin is more realistic and resembles more or less with that on the Aśokan pillar at Lauria-Nandangarh[7]. Recent discovery of a potin coin of king Sātavāhana depicts a lion[8] and resemble with our coin.

The depiction of *yūpa* on the Junnar coin is significant and needs explanation. On none of the Sātavāhana and Kṣatrapa coins so far discovered the *yūpa* is found. Etymologically *yūpa* is a sacrificial post usually made of *bamboo* or *Khadira* wood to which the victim is fastened at the time of sacrifice[9].

In the Vedic period the *yūpa* was considered to be an object of ritualistic purposes. The Ṛgveda[10] particularly throws immense light on the worship of *yūpa* in the form of a certain type of tree-trunk (*vanaspati-deva*) specially buried in the ground and was worshipped by a *brahmachārī* during his *ūpanayanavidhi* (thread-ceremony). There are eleven *sūktas* on the *yūpa* of which six to eight and tenth are important. The first two describe the *yūpa* as being erected in the ground after cutting a particular tree and sharpening it into a particular shape. The eighth describes the *yūpa* in the form of a sacrificial post. And the tenth *sūkta* mentions that the *yūpa* looks bright like the pointed horns of an animal. In this context it is interesting to note that the *yūpa* on the Junnar coin resembles the descriptions as given in the Ṛgveda.

The erections of *yūpas* in ancient India and South East Asia were not unknown. There are several references to the *yūpastambhas* which were erected by kings and noblemen in commemoration of their performance of various sacrifices. Isapur *yūpastambha* with a Brāhmī inscription of the time of Vāshiska, the successor of Kaṇiṣka, in the year 24 of the Kuṣāṇa era, was erected by a Brāhmin of the Bharadvāja *gotra*[11].

Kutei *yūpa* inscription of Mūlavarman (Muara-Kaman on the Mahakam river—Kutei State, East Borneo, now in Malaysia) was erected about fifth century A.D.[12]

John Irwin has recently suggested that the famous Heliodorous Pillar at Vidiśā was a *yūpastambha* (sacrificial-post of the Vedic altar) and gave a number of textual references in that context[13]. Mention

may be made that the Naneghat inscription of queen Naganikā refers to various Vedic sacrifices performed by her[14].

All this would show the high antiquity of *yūpa* in ancient India. Its depiction alongwith lion on the obverse of Junnar coin, therefore in all probability suggests the symbols of sovereignty and a sacrificial-post of the Vedic altar.

The legend on the reverse of the Junnar coin merely gives the title as *Ma ha kha ta pa sa* without any suffix or prefix and therefore it is difficult to assign it to any particular Kṣatrapa king. It would be interesting to trace the title of them in relation to their coins in Western India.

The term 'Kṣatrapa' is a Sanskritised form of the old Persian '*Khshathrapāvan*', *i.e.*, protector of the land and the Prākṛt forms are as '*Khatapa*', '*chatrapa*', and '*chatrana*.'[15] The term appears for the first time in Indian coin legends and inscriptions of the second century B.C. It is a borrowed word and 'used only to denote the holder of an office which was of foreign origin.' In India, as in Persia, the term '*Kṣatrapa*' originally meant a viceroy of the 'King of Kings'. In India, however, one more term is designated in the inscriptions and coins, as '*Mahākṣatrapa*' or 'great Satrap', who occupied a position of greater power and independence than the *Kṣatrapa* and still seems to have acknowledged the suzeranity of a 'King of Kings', or they were feuadatories of the dynasty to which they paid allegience[16].

Andhāu inscription suggests that Caṣṭana and Rudradāman ruled together as Mahākṣatrapa and Kṣatrapa,[17] and the former earlier as Kṣatrapa[18]. In certain case the title of Mahākṣatrapa had been achieved by means of personal valour as is evidenced in Rudradāman's Junagarh inscription[19]. While Nahapāna's son-in-law Ṛṣabhadatta in his Nāsik and Kārle inscriptions refer to him as Kṣatrapa and Āyama, the minister in Junnar records as Mahākṣatrapa[20].

The Western Kṣatrapas include two distinct families, viz., Kārdamakas of the family of Caṣṭana and Kṣaharatas of Bhūmaka and Nahapāna. Since Nahapāna's stone-inscriptions referring him as Kṣatrapa and Mahākṣatrapa are to be found in Western India, it is worth while to investigate his coinage in the context of the present Junnar coin.

Nahapāna's known coins (Jogelthembi hoard and a solitary copper coin from Ajmer) do not bear his above titles, instead we find him designated as 'Rājā' and the family designation as 'Kṣaharata'[21]. Recently, his coins perhaps for the first time have been reported in a stratified context in the excavations at Bhokardan[22]. There are two varieties of his coins. In the first variety the obverse depicts thunderbolt on left, arrow pointing downwards on right; between them a dot. The legend reads *Khatapasa Na (ha)*. There are some traces of letters preceding *Khatapasa*. On the reverse there is a tree with large leaves within railing. The second variety on its obverse shows the same symbols as in the former, with the legend *Mahakhatapasa*. These coins have been attributed to Nahapāna. The first variety to when he was Kṣatrapa and the latter when he was elevated to the status as Mahākṣatrapa[23].

Typologically the symbols and the legend on Bhokardan coins differ considerably with the Junnar specimen, although some similarity we do find in respect of the legend *Mahākhatapasa*. But the Junnar specimen could not be attributed to Nahapāna as there is no indication or trace of his name on the surface of the coin. Besides we can not associate him with Vāśiṣṭhiputra, as he was destroyed by Gautamīputra according to Nāsik inscription[24] and Vāśiṣṭhiputra was not ruling at that time.

The legend on the obverse of the Junnar coin, *i.e. Vāsithiputasa* is equally difficult to tackle with. The name does not begin with the prefix 'Rājan', 'Raño' and 'Siri' or end with the family name. Vāśiṣṭhiputra is a metronymic which is often found in several stone-inscriptions and coin legends of the Sātavāhanas, Kura dynasty coins of Kolhapur. According to Mirashi, there were three Sātavāhana kings who have the metronymic Vāśiṣṭhiputra, viz., S'iva Śrī Puḷumāvi, Sātakarṇi (V) and Skanda Sātakarṇi[25]. The inscriptions from Naneghat referred Vāsithiputa Chatarapana Sātakani and Vāsithiputa Sāmi Chaḍasāta from Kodavolu[26] does not give us more information regarding their relationship with the Kṣatrapas. The generally accepted synchronism and contemporaneity of the Western Kṣatrapas and the Sātavāhanas is as follows :

Caṣṭana 11	=A.D. 89-90
Nahapāna 46 = Gautamīputra's 18th regnal year	=A.D. 124-125

	= Gautamīputra's 24th regnal year	=A.D. 130-131
Caṣṭana/Rudradāman 52		=A.D. 130-131
	= Vāśiṣṭhiputra Puḷumāvi's 2nd to 24th regnal years	=A D. 132-154
Rudradāman 72		=A.D. 150-151

Gautamīputra Śri Sātakarṇi's last recorded year is 24 which corresponds to A.D. 130. He was succeeded by his son Vāśiṣṭhiputra Śrī Puḷumāvi, who is known to have ruled for at least 24 years as per his last known inscription at Karle, which corresponds to A.D. 154[27]. It has been generally accepted that he was co-uterine brother of Vāśisṭhiputra Śrī Sātakarṇi of the Kanheri inscription. Rudradāman's Junagarh inscription (A.D. 151) refers to the "...Sātakarṇi Lord of the Deccan, to whom he twice in fair fight completely defeated, but did not destroy on account of the nearness of their relation .."[28]

In the conquered territories of Rudradāman northern Aparānta was included. His relationship with Sātavāhana family could be further corroborated by the Kanheri inscription which refers that "...the queen (*devī*) of Vāśiṣṭhiputra Śrī Sātakarṇi, descended from the race of the Kārdamaka kings (*rājan*), daughter of the *Mahākṣatrapa* Ru..."[29] The mutilated Ru...has been conjectured as Rudradāman. This is the clear testimony of the matrimonial alliance between the Kṣatrapa and Sātavāhana family. Rudradāman's exploits and his relationship with these two kings suggest that in all probability he handed over the Aparānta region to either of these two kings. And possibly to mark the occasion, a new type of coin was introduced on which on obverse we find the name of the king and on reverse the title of the Kṣatrapas. However, future discoveries may throw more light on this problem. The present Junnar specimen thus adds a new variety in the ancient coinage of the Sātavāhanas and Kṣatrapas[30].

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XLIX

A Unique Coin of Mahaksatrapa Isvaradatta S 154

SHOBHANA GOKHALE

The coin of the Mahākṣatrapa Īśvaradatta discussed in this paper is of silver, circular, measuring diameter 15 ml. thickness 2 ml. and weighing 1.170 grams[1] (Pl. CXIII b).

Obv : In the middle the portrait of Īśvaradatta facing right is similar to those of the Kṣatrapa Kings Vīradāman (Ś 156-160), Yaśōdāman I (Ś 160-161) and Vijayasena (Ś 160-172). The date 154 is behind the ear.

Rev : Chaitya and crescent, slightly obliterated wavy line of river is distinct. There is the circular Brāhmī legend reading—
Rañō (mahā) Kṣatrapasa Varṣa cha

The present coin is unique in the numismatic field as it is the only dated coin of Mahākṣatrapa Īśvaradatta so far known. On the obverse in the numerical figure the first digit was shown by horizontal one line or two lines. Other digits were not clear. This is for the first time that we are getting a coin where all the three digits are clear. From the various Kṣatrapa hoards found so far it appears that generally Īśvaradatta's coins are found along with coins of Kṣatrapa rulers and his portraiture is similar to those of the Kṣatrapa Kings Vīradāman, Yaśōdāman I and Vijayasena. The legends on the reverse of his coins mention his first and second regnal years, which suggest that he apparently ruled for a short time.

The identity between Īśvaradatta and the Ābhira king Īśvarasena which is based on the Purāṇic and inscriptional evidence has become a controversial problem among the scholars. Secondly there was a difference of opinion as to the period to which Īśvaradatta's rule should be assigned. In the absence of any date on his coins, scholars like Bhagawanlal Indraji[2], Rapson[3], Bhandarkar[4], Gupta[5], and Sircar[6] propounded different theories regarding the ruling period of Īśvaradatta.

Bhagawanlal Indraji made ingenious conjecture that the Ābhira Īśvarasena and Īśvaradatta were identical and he must be the founder of the Kalachuri Traikūṭaka era and his first regnal year corresponded with A.D. 249, the initial date of the Kalachuri era. To support his theory he pointed out the absence of Kṣatrapa coins between the years Ś 171 (A.D. 249) and Ś 176 (A.D. 254). But further discoveries of Kṣatrapa coins proved that there was no such break and the dates run continuously between Ś 171 and Ś 176. According to Rapson Bhagawanlal's identification of Īśvaradatta as an Ābhira connected with the dynasty represented at Nāsik by Īśvarasena is, therefore, extremely probable.

Rapson studied the palaeography of the legend on Īśvaradatta's coins. He carefully observed the portraiture of Īśvaradatta and the treatment of eye and pointed out a close resemblance between the features of Īśvaradatta, Vīradāman Yaśōdāman I and Vijayasena, who flourished between Ś 156 and Ś 172. Further he indicated that the letter '*kṣa*' in the Īśvaradatta's coin legend is later than Ś 130 and the round shape of '*pa*' is earlier than about Ś 160. Rapson, therefore, placed Īśvaradatta's reigning period between Ś 158 and the last recorded date of Mahākṣatrapa Dāmasena and Ś 161 the earliest date of Mahākṣatrapa Yaśōdāman I.

In the Sarvania hoard of Kṣatrapa coins, Bhandarkar discovered a coin of Mahākṣatrapa Yaśodāman I with the date Ś 160. He commented on Rapson' conclusions which were based on the palaeographical features of Īśvaradatta's coin legend and the treatment of eye in Īśvaradatta's portraiture and placed Īśvaradatta between Ś 110 and Ś 113. Rudrasiṁha I issued coins in this period with the humbler title of Kṣatrapa. According to Rapson this humiliation of Rudrasiṁha I was due to the usurpation of power by Jīvadāman. But according to Bhandarkar Īśvarasena was responsible for this usurpation. But in Ranjangaon hoard, the author discovered Kṣatrapa coins dated Ś 110 and Ś 1 (16).[7]

Gupta has drawn attention of scholars by submitting a coin of Rudrasiṁha I issued as Mahākṣatrapa in Ś 112. He considers the reading of the title Kṣatrapa on the coins of that year by Rapson is doubtful and he took it as engraver's mistake. On the basis of the study of coin hoards of Uparkot, Sarvania, Sonepur, Vasoj, Junāgaḍh, Sāñchi, Gondramau and Karad, he has placed Īśvaradatta more than a century later than the period suggested by Indraji, Rapson and Bhandarkar.

Sircar did not approve Gupta's theory[5] and has correctly pointed out that the real cause of the absence of the coins of Rudrasena III between Ś 273 and Ś 284 was due to the defeat at the hands of the Gupta Emperor Samudragupta and suggested reconsideration of Rapson's theory who placed Īśvaradatta between Ś 158 and Ś 161 on the basis of palaeographical features and the observation of portraiture.

The discovery of the dated coin of Īśvaradatta has removed the obscurity in the history of Īśvaradatta. As the date Ś 154 and the reverse legend records the letter *cha* for *'Chaturthe'*. It indicates that Īśvaradatta started his career in Ś 150. It has proved that Rapson's conjectures were remarkably correct. After the fall of the Śātavāhanas, the Āndhrabhṛtyas-Ābhiras came into power. But unfortunately the Purāṇas[8] do not mention their names. If Īśvaradatta and the Ābhira king Īśvarasēna are identical then the present coin which is dated in Ś 154 has offered the unique evidence which fixes the terminal year of the Sātavāhana paramountcy.

According to Mirashi[9], Īśvaradatta came to throne on A.D. 229 and Īśvarasena of the Ābhira family who was the founder of Ābhira era (A.D. 250) were not identical personalities as their name-suffixes their royal titles are different. One is *'Rājā'* and the other is Mahākṣatrapa. The Nāsik inscription of the Ābhira King Īśvarasena refers to his 9th regnal year. The contemporaneity between Īśvarasena and Īśvaradatta is rather tempting to it establish their identity but the available data is not sufficient to solve the problem finally.

The coins of Dāmajadaśrī II, the son of Rudrasena I issued in Ś 154 and Ś 155 suggest that he enjoyed the status of Kṣatrapa. Upto Ś 160 Yaśodāman I and Vijayasena, both the sons of Dāmasēna, were Kṣatrapas. In Ś 161 Yaśodāman I attained the status of Mahākṣatrapa and Vijayasena whose coins were circulated on large scale acquired the status of Mahākṣatrapa in Ś 162. The present coin indicates that Īśvaradatta who had a meteoric rise must have ruled between Ś 150 and Ś 160.

Prof. Mirashi suggested the reading of the legend as follows *Raño* Mahā *kṣatrapasa Iśvaradattasa Varṣē cha*, It indicates that Īśvaradatta started his career in Ś 150 when Dāmasena was Mahākṣatrapa.

Mirashi has brought to the notice that the numerical figures were there on the published coins but as they were indistinct, they could not be read.

The present coin which is dated in Ś 154 has reopened the problem of the founder of the Kalachuri Chedi Era. Rapson, who placed Īśvaradatta in the gap of Ś 158-160 suggested that the era of A.D. 249-50 might have marked the consolidation of the Ābhira kingdom during one of the successors of Īśvaradatta rather than its first beginning but Mirashi[10] has pointed out that in the history of other Indian eras shows that they generally originated in an extension of regnal dates. The Kuṣāṇa era, for instance, owed its use to the continuation of Kaṇiṣka's regnal dates.

The Purāṇas unfortunately do not name the Ābhira kings but they states that their rule lasted for 67 years. It is therefore the present dated coin of Īśvaradatta has offered an evidence for the reconsideration of Rapson's theory.

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Recent Numismatic Discoveries in the Valleys of Betwa, Narmada and Godavari

K.D. BAJPAI

The region of Madhya Pradesh is exetremely rich in numismatic evidence. It has earned the credit of providing some of the important missing links in the post-Mauryan history. Recently excavations at the ancient sites of Eran, Vidishā, Tripuri, Tumain, Ujjain and Malhār have brought to light valuable stratified evidence bearing particularly on the history of the Sātavāhanas, the Śuṅgas, the Nāgas, the Kṣatrapas and the Guptas. The exploration work conducted at Pawāyā and in the Betwā and Narmadā valleys has also furnished some rare material very useful for the early political and cultural history.

Two main centres in the region of eastern Malwa, Eran and Vidishā are known to have issued punch-marked copper *Kārṣāpaṇas* and their denominations. From the aesthetic point of view these coins rank high. They are square in shape and the punch-marked symbols on them usually show elephant, horse, tree in railing, *chandrameru*, *vajra* (called Ujjain symbol), river, swastika and *Indradhvaja*. Most likely the minting of these coins started at Eran and Vidishā in the later half of the 3rd cent. B.C. Such coins were soon after prepared at a few other sites in the Sehore and Hoshangabad districts.

Some of the rulers with names ending with *Mitra* adopted the punch-marking device for the preparation of their square copper coins. The name of the ruler is given in the form of one of the punch-marks struck either at the top or bottom of the coin. So far the names of the following rulers with names ending with *Mitra* are known on the punch-marked copper coins from eastern Malwa[1]:

(A) PUNCH-MARKED COPPER COINS OF MITRA RULERS

(1) Nārāyaṇamitra, (3) Vasu (or Vajra) mitra,
(2) Bhānumitra, (4) Ravimitra (?).

The names on the coins are written in their Prākṛt forms. On the basis of the technique and palaeography these coins can roughly be dated to a period between *c.* 200 B.C. and 100 B.C.

Apart from the *Mitra* punch-marked coins, we have now some other inscribed punch-marked coins of considerable importance. They are :

(B) PUNCH-MARKED COINS OF NON-MITRA KINGS

1. Rāmabhadra (One square punch-marked coins of this ruler has been found in the Eran excavation).
2. Dāmabhadra
3. Hastideva (legend Hathidevasa has wrongly been read by some as *Pathadeva*).

These coins are also square and are of the *Kārṣāpaṇa* type. Hastideva issued some die-struck coins also.

(C) PUNCH-MARKED COINS OF THE SĀTAVĀHANAS

A few *Kārṣāpaṇa* coins bearing the legend *rāño siri Sātakaṇisa* were known a few years back. One very clear coin of this ruler from Vidishā was published by me[2].

Recently a few more punch-marked coins of this ruler are known from near Babai, district Hoshangabad[3]. More finds from that site and also from Vidishā represent the punch-marked square coins of the half or quarter *Kārṣāpaṇa* type bearing the legend *raño Siri Sātasa.*

This king is known to have issued a pretty good number of die-struck coins also, which are known from the area outside eastern Malwa as well[4]. Recently a coin of this king of the punch-marked type was obtained by me from excavations at Tumain (dist. Guna).

(D) PUNCH-MARKED COINS OF BHAGILA

The legend on these full and *ardha Kārṣāpaṇas* is *Bhāgilāyā* written in bold Aśokan Brāhmī characters. These coins were most probably issued by a city-state called Bhāgilā.

Dr. S.L. Katare, while publishing five Bhāgilā coins for the first time, wrote that they were all die-struck coins[5]. These were obtained from the southern bank of the Narmada near Jamaniā in the Hoshangabad district. But to me these coins appear to be of the punch-marked type. Four of these five coins of Katare are blank on the reverse, a feature of the *Kārṣāpaṇas* of eastern Malwa region. Several punch-marked Bhāgilā coins are now known from the site mentioned above and its neighbourhood[6].

Prof. A.S. Altekar was right in reading *Bhāgilāyā* (not *Bhagilāyā*, as Katare did). The period assigned to this coinage between *c.* 200 B.C. and 100 B.C. by Altekar seems to be correct.[7] The city-state of *Bhāgilā* was probably located on the southern bank of the Narmada, to the north of Jamaniā. The site is represented by extensive ancient mounds.

These punch-marked inscribed coins and a few early diestruck coins from the Betwa-Narmada valleys, giving the names of rulers and of some *Janapadas*, are remarkable. They have placed before us new material pertaining to the history of the Śuṅga-Kāṇva-Sātavāhana period.

It is interesting to mention here that from Eran names of two early rulers of about 200 B.C. are already known. One is Dharmapāla known from his single die-struck coin (now in the British Museum)[8]. The other is Indragupta. He is known from the legend given on his die-struck on a semi-circular lead piece (of a full *Kārṣāpaṇa* size) recovered from Eran excavations. The legend in Mauryan Brāhmī characters is *rāño Indragutasa*[9].

From the die-struck lead piece of king Indragupta, it is clear that the die-striking device was current in eastern Malwa in *c.* 200 B.C. side by side the punching method for preparation of coins. The excavations conducted at several sites in eastern Malwa, *e.g.* Eran, Vidishā and Tumain, have confirmed this.

The current theory that Indian rulers started putting their names on coins in imitation of the Indo-Greek coinage has to be reconsidered now. I feel that some of the inscribed punch-marked coins referred to above were issued in Central India before the time of Demetrios.

The recent discovery of some die-struck square copper and potin coins from an ancient site near a village Koṭā-liṅglā on the right bank of the river Godāvarī, about 60 kms from the district head-quarters of Karimnagar in Andhra Pradesh is worth-mention here. Dr. P.V. Parabrahma Sastry has published these rare coins.[10] He deserves acclamation for this important discovery.

The coins are of 6 rulers, two of them (Gobhadra and Sāmigopa) being earlier to king *Sātavāhana.* As many as 10 coins of Gobhadra and 38 of Sāmigopa are reported.

As regards the Sātavāhana coins from Koṭā-Liṅglā, 8 are of Chimuka Sātavāhana, 16 of Sātakarṇi and 8 are of king Sātavāhana. One coin of king Śrī Nārāyaṇa has also been discovered. These coins are briefly discussed here.

I. *Gobhadra*

The coins of this ruler are almost of the size of the copper *Kārṣāpaṇas* (either square or rectangular). The legend on them has rightly been restored by Dr. Sastry as *rāño Gobhadasa.*

The symbols on the coins are: 3-arched *Meru*, bow and arrow. Reverse is blank.

On paleographic grounds, this king can be placed between *c.* 125 and 100 B.C.

The name Gobhadra can be compared with Gomitra of Mathura of Bhadraghoṣa of Pāñcāla.

II. *Svāmī Gopa*

The second king Svāmīgopa issued a much larger number of coins than Gobhadra. His coins have been put under *three* categories by Dr. Sastry :

(i) *Bow-arrow type*, (ii) *Tree type* and (iii) *Bull-type*.

The coins are square or rectangular *in shape*.

The coins bear some additional interesting symbols such as *Svastika*, double standard with a triangle, *Indra-dhvaja*, *triratna* and *Ṣadaracakra*. The last one is sometimes counter-struck.

The reverse of these coins bears a *triratna* surmounting *vajra*. The legend has been restored as *rāño Sāmīgopasa* (*i.e.* of king Svāmīgopa). This king can be assigned a period between *c.* 100 and 75 B.C.

III. *Chimuka* (*Simuka or Śrīmukha*)[11]

These coins bear on the obverse figures of elephant, *Indradhvaja*, *Śrīvatsa*, *tree*, *vajra*, *Svastika* and 3-arched hill. The legend on the obverse has been restored as :

rāño Siri Chimuka Sātavāhanasa

The time assigned to this ruler by Sastry on the basis of legends on the coins is middle of the 1st century B.C.

IV. *Sātakarṇi*

His coins are square in shape and are made of copper or potin.

The obverse has symbols of elephant, *Indradhvaja* and Svastika. Legend on the top is *Sātakaṇi*.

The reverse shows *Vajra* (Ujjain) and *svastika* symbols.

On the basis of the paleography this king is to be placed after *c.* 50 B.C.

V. *Sātavāhana*

The coins of this king from Koṭā-Liṅglā are of *two-types* : tree and elephant.

The obverse has tree in railing or elephant along with the usual other symbols.

Below, the Brāhmī legend reads : Siri Sātavāhana.

The usual symbols *triratna*, *vajra* and *svastika* occur on the reverse.

This ruler on the basis of these coins should be placed after Simuka, *i.e.*, after 50-40 B.C.

It is interesting to note that no coins of the later Sātavāhanas are known from the Karīmnagar site.

After the publication of the above mentioned coins Dr. Sastry came across at Koṭā-Liṅglā a new inscribed copper coin bearing the name of Śrī Nārāyaṇa. The coin is square in shape. On the obverse the *Brāhmī* legend of the 1st century B.C. reads *Siri Nārāyaṇasa*. The reverse shows *meru* and *triratna* symbols.

Dr. Sastry feels that Nārāyaṇa of this coin can be identified with Kāṇva king of the same name mentioned in the Purāṇic lists. But it is doubtful if this identification of Nārāyaṇa of the new coin may be a local ruler.

Dr. Sastry is correct in his statement that "even after the Kāṇvas dislodged the Śuṅgas in the Magadha region, the latter were still exercising some authority probably in Vidishā and the Deccan". But it is not possible to agree with him when he says that "Gobhadra and Sāmī Gopa (of the above-mentioned coins) were the scions of the Śuṅga family who ruled Vidishā and the Deccan including Andhra in the Post-Sātavāhana (?) period[13].

The new numismatic evidence from the Karimnagar district of Andhra Pradesh, when studied along

with the material now known from the Betwā-Narmadā valleys, poses before us certain problems for consideration in regard to the post-Mauryan history.

I would like to place here my views pertaining to the main points arising out of the study of the above-mentioned and the allied evidence.

1. Simuka, the Āndhra king, started his rule in the lower Godāvarī valley about 60-50 B.C. after dislodging the last local king of that area. The defeated king was probably Swāmī Gopa of the coins, a later Śuṅga or a Śuṅgabhṛtya king.
2. The last Kāṇva king Suśarmā[14] of the Purānic list was also defeated by Simuka in the north.
3. The new numismatic evidence tends to show that the later Śuṅgas or the Śuṅgabhṛtyas were successful in extending their sway in the entire eastern Malwa and beyond the Betwā-Narmadā source-regions to lower Godāvarī. They ruled over those regions upto about 60-50 B.C. At this time they came into conflict with the re-asserting power of the Andhras under Simuka and were eventually defeated by Simuka, who gave a fin·l end to the Śuṅga-Kāṇva power[15]. This could not be achieved during the time of Sātakarṇi. I, who had extended his sway upto eastern Malwā (under the Śuṅga rule) much before the time of Simuka. It appears that the relations between Sātakarṇi I and his contemporary Śuṅga ruler of Central India were cordial[16]. This good relationship seems to have lasted upto the time of the Sātavāhana king Śrī Sāta, whose punch-marked and die-struck coins in a good number are known from an extensive region (from Ujjain & Tumain upto Tripuri). The king of these coins can possibly be identified with Saktiśrī or king no. 6 of the Purāṇic list.[17]
4. The coins bearing the name of king Sātavāhana (or Sādavāhana) are now known in a good number[18]. It is apparent that several rulers of the dynasty issued their coins with that name (like the name of Sātakarṇi). The time ranges of these coins can be between *c.* 50 B.C. and A.D. 100[19].
5. The first major capital of the Sātavāhanas was Dhānyakaṭaka. Later on when their power extended to north and west, they made Pratiṣṭhāna (Paiṭhān) their capital in the Deccan. Ujjain, Vidishā, Tripuri, Malhar, etc., were their temporary headquarters, where coins of some of the early Sātavāhana kings have been discovered.
6. The rulers of Betwā valley, whose coins have been referred to above, were the followers of the Vedic cult; so also were the Sātavāhanas.

A few more significant recent discoveries in Madhya Pradesh are detailed below :

An ancient site Nandur, 22 kms S.E. of Bhopal has yielded a few copper coins with letters *Nadī* or *Nada* [*pu*], indicating that the ancient name of the site was probably Nandipura. The Brāhmī characters on the coins are early Mauryan. The site has also yielded some copper coins of the *Kārṣāpaṇa* variety and cast and die-struck coins with beautifully carved symbols on them. Some square coins bear the figures of three animals (elephant, bull and lion) and on a few coins is shown a lankey bull.

From Nandner[20] in the Sehore district of Madhya Pradesh, a few coins of the Bhāgilā city-state have been found. Two square copper coins bearing the legend *hathadeva* have also been found there. They were issued by a ruler called Hastideva in 1st century B.C. Much more important are a few rectangular punch-marked copper coins of two rulers from that site. One of these bears the legend *rāño Bhānumitasa* (of king Bhānumitra).

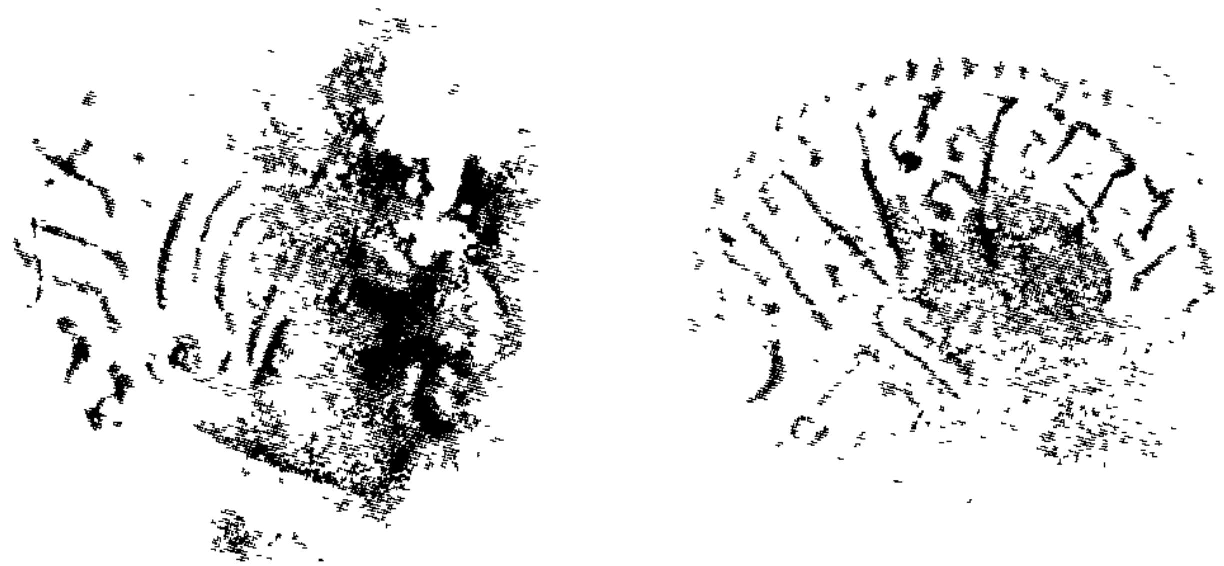
Another such coin is of Rāmabhadra, whose name is written as *Rāmabhadasa*, *rā* on some coins looks like *da*. These are two new rulers of *c.* 2nd-1st cent. B.C. known from their coins.[21]

From Vidishā the following important coins have recently been procured : One square copper coin giving the name of a new king Sivamitra of 1st cent. B.C. and three coins of Rāmagupta of the Gupta dynasty. On two of them *garuḍa* is shown in the human form. The third coin of the *garuḍadhvaja* type has the full Sanskrit legend *Srī Rāmaguptaḥ.*

From Pawaya (*Padmāvatī*) in the Gwalior district, a unique copper coin of king Ravināga of the Nāga dynasty has been identified by the author. In the centre the coin has the standing figure of Śiva with *Jaṭājūṭa*.



a. Vāśiṣṭiputra/Mahākṣatrapa Coin, Junnar.



b. Mahākṣatrapa Īśvaradatta Coin.

At Mandsaur have been found three copper coins of the late Gupta period. One of these bears the name of *Satyagupta,* a new ruler. The other two coins bear the legend *Mahārāja Harigupta.*

Tripuri has yielded some important coins and sealings of the Bodhi rulers and also of kings of *Sena* ending names. The coins and sellings of five Bodhi kings have been published by the author[22]. The Sena kings are Mahāsena, Sujeșțhasena and Sundarasena.[23]

From Tumain excavations a hoard of 589 silver coins has been obtained. These coins are of the Indo-Sassanian type with various symbols. Seven out of these are the coins of king Ajayadeva of the Chāhamāna dynasty (11th cent. A.D.).

One square copper coin (Reg. No. 244) from Tumain excavation deserves particular mention here. It is a punch-marked coin with elephant and other symbols on the obverse. It bears at the top the Brāhmī legend *'Siri Sātasa'*. The stratified evidence assigns this coin to *c.* 1st cent. B.C.

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2. Proc. Seminar on Sātavāhana coins (1972); Bajpai, K.D., *Indian Numismatic Studies,* Delhi, 1976, pp. 114-15.
3. I am thankful to Prof. K.B. Tewari of Hoshangabad for kindly showing me these and other coins from Babai in his collection.
4. For details see Bajpai, K.D., *op.cit.,* pp. 115-18.
5. *JNSI.,* XIX, pp. 9-14, pl. II, 13-17.
6. Prof. K.B. Tewari has recently shown to me several punch-marked Bhāgilā coins in his collection. He has very kindly given to me two such coins.
7. Dr. Katare places the time of the Bhāgilā and other city-states before the rise of the Śuṅgas, *JNSI.,* XIX. p. 13.
8. Cunninghan, *CAI.,* p. 101, pl. XI, 18; Allan, *BMC, AI.,* p. xci, 140, pl. XXIII, 6. The complete legend on the coin is *rāño Dhampālasa.*
9. See Bajpai, K.D., *Sāgar Through the Ages,* Sagar, 1964, p. 7, pl. XVIII (a).
10. *Numismatic Digest,* Bombay, Vol. II, June, 1978, pp. 10-21.
11. In the Nanaghat relievo label inscription, the name is Simuka. The Purāṇas call his Sindhuka, Śiśuka, etc.
12. Parabrahma Sastry, *op.cit.,* p. 17.
13. *Ibid.*
14. It is not correct to suppose that the Kāṇvas ruled over Central India (beyond Vidishā), Deccan or the lower Godāvarī valley. So far no tangible evidence to support this conjecture has been obtained from those regions, not even from eastern Malwa.
15. This is corroborated by the Purāṇic description, See Raychaudhuri, H.C., *Political History of Ancient India,* 7th ed. 1972, pp. 358 ff.
16. This can be inferred from the Sāñchi inscription of Sātakarṇi I. For the punch-marked coins of this ruler and his period, see Bajpai, K.D., *Indian Numismatic Studies,* pp. 114-15.
17 *Ibid.,* p. 117.
18. These have been found not only in Andhra Pradesh but also in Deccan and lower Malwa.
19. For views of Sri A.H. Siddique *et.el.,* see *JNSI.,* Vol. 39, pp. 77-84.
20. I have identified this site with Nandinagara, which name occurs in several Sāñchi inscriptions, see, Bühler, *EI.,* Vol. II, pp. 96-115.
21. I am thankful to Prof. Shankar Tewari of Bhopal who has kindly show his collection of coins obtained from Nandur and Nandner for my study.
22. *Ind. Numismatic Studies,* pp. 159-66, pl. x.
23. Coins of the last mentioned Sena king have recently been published by Dr. Choubey, M.C., *JNSI.,* Vol. 39, pp. 157-59; pl. x, 5-14.

F. Conservation

LI

Scientific Preservation of Cultural Property : India's Contributions

GRACE McCANN MORLEY

Anxiety about the need and the means to ensure preservation of the cultural heritage has grown steadily since World War II. It is an international movement and as so often is the case for constructive action, Unesco has taken leadership in it and continues to do so. In the Asian regions particularly Unesco's interest has been decisive.

Preservation of antiquities and of monuments had, of course, been carried out earlier. Everywhere, as in India, from the last century at least, efforts were made to preserve and repair historic monuments in need of the best skill of engineers and architects, generally working with archaeological services, to shore up structures in danger of collapse. Museum workers also strove to preserve collections. But generally speaking, since the end of the war, increasingly skilled techniques for all types of preservation have developed steadily and have been applied conscientiously, generally with due regard to aesthetic considerations and to historic authenticity, as well as to the technical expertise required for such tasks. But there developed also an appreciation of the immense scope of preservation, of the demands on it and of the need for a beginning of specialization.

Illustrations might be drawn from various parts of the world—Europe or the United States, particularly. But growth of the preservation movement in India and its influence and contribution to other countries of South and Southeast Asia provide a well balanced picture of steady evolution and growth, of immediate concern for protection of the treasures of the cultural heritage of the region. This is especially pertinent indeed, since, with the founding of the National Research Laboratory for Conservation of Cultural Property in 1977 and its definitive location in its own building in Lucknow, a new phase in Indian development may be said to have been started.

Recognition of the need for specialization in regard to preservation included quite early the creation of preservation facilities for museum collections as distinct from general preservation/conservation services. Mostly very large museum in western countries had a good beginning by the 1930's, but were primarily concerned with the preservation and with all varieties of treatment, required by paintings, whether on canvas or on panels. It was a time when private experts, usually termed painting "restorers", were much in demand. They served the commercial galleries, which already had a large trade in art, and also, in some cases, they did work for smaller museums which had no laboratories or workshops of their own.

Unesco was founded in 1946 and ICOM had its beginnings only a year later, when the first organizational meeting, in retrospect considered the First Assembly, took place in Mexico City, just preceding Unesco's Second General Conference there, in November, 1947.

Unesco's Museums Division and, of course, ICOM (The International Council of Museums), gave attention to problems of conservation for museums almost from the moment of their creation. The war years in Europe, with removal of museum collections to safety, damages and losses resulting and the

return of collections to their museum and their reinstallation naturally stimulated concern for preservation.

One of the first steps taken by Unesco to broaden the base of the preservation of cultural property beyond the western countries was the mission to Southeast Asia which it sent the late Paul Coremans, in the early 1950's. He was founder and director of the Royal Institute for Cultural Heritage and a recognized leader of the preservation movement. His report on the imperilled condition of Borobodur, the great 8th century Buddhist shrine in Java, was the beginning of the international campaign to repair and preserve that monument which is still going on. He stopped in Bangkok and called attention to the damage from rain suffered by the fine murals in the chaple of the Pra Pultha Sihing Buddha in the National Museum's precincts, adding in his report recommendations for their preservation. It was then that he began to think and share with friends his hope that eventually there would be adequate preservation/conservation centres in all the countries of Asia. He already hoped for some highly developed regional centres, which could carry on research, give guidance for difficult problems of preservation and also provide training for laboratory personnel.

Meanwhile, India, which had well staffed preservation service as a branch of the Archaeological Survey, took the important decision in 1958 of assigning an experienced chemist of the Survey to the Central Asian Collection of the recently founded National Museum, New Delhi. When, at the end of 1960, the National Museum opened the first unit of its new building to the public, its Conservation Laboratory was already installed, with a considerable amount of equipment and was actively functioning in workshops on its top floor.

During the next few years Unesco assisted the Conservation Laboratory of the National Museum in many ways. It arranged a study trip to the west for its Head and scholarships abroad for some of its junior staff members. It arranged for equipment not yet available in India. It encouraged the Museum to take full advantage of the various opportunities for training abroad offered by different European countries.

All this variety of opportunity for learning the techniques of preservation, conservation and even restoration was valuable, needless to say. The practical work under expert supervision, but also the observation of experienced workers at well known tasks, carrying out with assurance established procedures, the study of objects before and after treatment, the opportunity to see museums with great collections and to become acquainted with museum professionals, including those in laboratories, in other countries, represented always an enriching experience, brought back to benefit their own work in the National Museum and often to share to some degree with colleagues there. But the final professional polish was the work back home, the slow growth of knowledge and skill applied to the objects sent for treatment and repair. In short, practice and experience were the requirement. Thus a competent staff was gradually built up at the National Museum.

At the request to Unesco of the National Museum's Director Dr. Paul Coremans and Dr. Harold Plenderleith were sent in New Delhi in 1965 to advise on the development of the Laboratory of the National Museum in relation to the needs of preservation in the country and to recommend development of a regional centre.

Dr. Plenderleith, formerly Head of the Conservation Laboratory of the British Museum, was Director of the International Centre for Conservation, Rome. India had been a member for some years. (This inter-governmental organization had been founded by Unesco in 1958, as a result of the recommendation of Unesco's General Conference, held in New Delhi in 1956). These two experts were considered at the time the outstanding authorities in the field of preservation and the National Museum was fortunate to have their advice, though it could be followed only after some delay as preparations for it were begun.

In time the National Museum's laboratory offered courses, particularly for personnel in service in laboratory in the other museums of the country, which had begun to develop. Up-grading or refresher courses could be offered. Likewise the National Museum Laboratory occasionally undertook particularly difficult tasks for other museums.

A striking example is the removal of the murals in the mid sixties from the Rang Mahal in Chamba, a small palace decorated as most such princely dwellings were, with paintings depicting mostly episodes or Kṛṣṇa's life. They would have been lost to public view and been subjected to deterioration when the building was to be used for administration. The murals, safely mounted, will eventually be returned to the Museum in Chamba. Meanwhile, they are exhibited in New Delhi, valuable testimony not only to 19th century Pahari art history, but also to the technical skill of the National Museum's team of experts.

It is pertinent here to point out that removal of murals from various types of walls is only one of the skills required of a conservation laboratory expert in a fully functioning museum laboratory in India. The hostile conditions of the variety of climates of India—hot and humid, hot and dry, and changing abruptly with the seasons in some parts of the country represent problems for preservation, of the variety of museum objects resulting from a long and rich cultural history. The great quantity and tremendous range of materials, organic and inorganic, included in the majority of museums, most of them susceptible to changes of relative humidity and temperature, to attack by insects and by micro-organisms flourishing in favourable tropic climates, provide challenges to scientific preservation knowledge and the technical skills of its application, even the devising of special techniques of treatment in some cases, hardly to be matched elsewhere. Added is the damage of careless handling and storage in the past, before respect for such objects had become general.

A moderately equipped and staffed museum laboratory must begin by being fully aware of preventive measures for preservation and of the requirements of ordinary conservation for most items of museum collections—fumigation, deacidification of manuscripts and textiles, proper protective mounting of miniatures, mending of textiles, elimination of causes of stone deterioration, freeing wood of destructive insects and consolidation of weak parts, recognition of destructive corrosion of metals and at least emergency treatment to arrest it, precautions against fungus, to mention a few day to day problems. A sophisticated conservation laboratory must be able to do still more. The laboratory of the National Museum, New Delhi, was well developed by the mid 1960's.

At this favourable moment, India's preservation/conservation knowledge and experience was for the first time made available outside the country. Unesco sent on a three months' mission to Thailand a senior staff member of the Laboratory of the National Museum, New Delhi. This coincided with the preparations for the inauguration of the reinstalled new wings of Bangkok's National Museum, held in May, 1967.

The result of this mission was a general survey of the needs of preservation of cultural property in Thailand, with emphasis on what a museum preservation service could and should provide. One result was the drawing up of a careful plan for a preservation laboratory, which later was to be supported by Unesco supplies of necessary equipment. Meanwhile two members of the Bangkok National Museum's staff, a chemist and a painter (for mural conservation), had been sent a couple of years earlier to Dr. Paul Coremans for training as a result of his earlier visit and his reports, especially on the urgent need for mural preservation. G A second urgent requirement for preservation was treatment of bronzes. Thailand's successive periods of art history had been particularly productive of bronzes—principally Buddha images, monumental but also in small scale example—while the almost unbroken year round hot and humid climate in most parts of the country was particularly encouraging to "bronze desease", a corrosion menacing objects, in many of the principal museums of the country. The Indian expert was able to give helpful advice for all aspects of preservation, including treatment of bronzes, a problem also in India.

The next contribution of India's preservation/conservation knowledge and experience to countries of South and Southeast Asia took place in 1970. ICOM commissioned the same expert from New Delhi's National Museum's Laboratory, who had been successful in Thailand to do a tour of other countries of the region, to observe conditions, to give advice, to hold meetings for museum and laboratory workers, and to provide a report which would provide guide lines for future planning in this field of training personnel for preservation/conservation, including creation of conservation laboratories and workshops to meet preservation needs.

This mission was fruitful. It included a review of developments in Thailand. It brought professional advice, soundly informed on the museum materials of the region, to Sri Lanka, Indonesia, Malaysia and Singapore. In all cases it could be said to have had influence, sometimes in encouraging training of personnel for preservation/conservation responsibilities, or in planned development of a laboratory, or, perhaps most importantly, fixing the attention of authorities responsible for museums, and for museum directors and staff members on the need for preservation of cultural property. In the case of Indonesia it led a year or so later to a three months' deputation of a staff member of New Delhi's National Museum's Laboratory to carry out a detailed survey of conditions in the country. He was able to institute emergency treatment for items in museums' collections, and provided basic instruction to some members of the Directorate of Museums staff for carrying out preservation operations.

The appointment for two years of the founder and former Head of the Conservation Laboratory of the National Museum, New Delhi, after his retirement from India Government service, as adviser on preservation of both monuments and museum collections to the Government of Burma was a further major contribution to the conservation movement in the region. He organized the Laboratory for the Archaeology Department and put to effective use the knowledge and skill of the conservationist in charge, who had been trained in Brussels by Dr. Paul Coremans.

A useful aspect of this steady growth of conservation knowledge and skill in India, of which some major aspects are referred to here, has been the opportunity for basic training in preservation/conservation of museum material made available to qualified personnel from other countries. The museums of Tehran and Jakrata have used this opportunity.

Obviously this summary review of contributions by the Indian preservation/conservation profession to other Asian countries can by no means be considered complete or detailed, but it does indicate how in a period of two decades Indian leadership has been valuable to the region. It represents undoubtedly significant progress in the scientific development of the preservation of cultural property held by museums.

It is perhaps pertinent to recall that earlier the preservation skills of the Archaeological Survey of India had occasionally contributed to urgently needed preservation work outside India, as, for example, the cleaning and preservation of a mural in a palace, now part of a museum, in Bhaktapur, Nepal. Very recently the Survey has devoted several years of conservation work to the preservation and repair of the monumental Buddhas at Bamyan, Afghanistan. Thus there is a well established tradition in India for sharing, on invitation, Indian expertise in this field with other countries of the region. There is assurance of the continuance of this admirable tradition and even expansion of it, with the establishment of the National Research Laboratory for the Conservation of Cultural Property, in Lucknow. This institution, which corresponds in a very real sense to Paul Coremans' hopes for scientific growth and refinement of the conservation movement in Asia has the support of both UNESCO and of the International Centre for the Study of the Preservation and Restoration of Cultural Property, Rome. Both expect it to provide training of personnel for laboratories of the region.

It should be added that the National Research Laboratory for Conservation will not only carry on training each year of a carefully selected small group of qualified personnel, both from India and other countries, but it will undertake research on materials typical of Asian museum collections and on specific requirements for their treatment. It will also test commercial products offered by manufacturers for use in conservation, in order to ascertain their suitability and safety for use in extremes of climate found in the countries of Asia. It will study differences in conservation practices in western countries, where economy in use of personnel is imposed by high costs, while in most countries of Asia even skilled labour is relatively cheap and traditional skills are still practiced.

Thus the National Research Laboratory for Conservation of Cultural Property in Lucknow will provide a bridge between the techniques of preservation developed in the west and those found practical in the Asian region and by furnishing a channel of communication and exchange will be able to serve valuably in both parts of the world the preservation cause.

LII

Conservation of Cultural Objects in the Tropics

O.P. AGRAWAL

INTRODUCTION

Unlike in the past when the main aim of a museum was considered to be collection and study, museums today per-form diverse and varied functions. They acquire objects of various categories like art, ethnography, archaeology, science, technology and other subjects; classify them, register them and photograph them. Some of the objects are put on display in permanent exhibitions. Temporary exhibitions are also arranged. The objects which are not put on exhibition are stored in reserve. Museums are also supposed to prepare publications on the specimens it has in its charge. The objects are also to be made available to research scholars and students for study. Naturally, all these museum activities, which are getting important with the changing role of museums, put severe strain on the objects. The educational role of the museum is getting priority over its earlier role of keeping the objects in safety. In order to be able to preserve the collections, inspite of the diverse activities that are to be performed in a museum and consequent handling of objects in one way or the other, demands a great deal of ingenuity on the part of the conservator.

It is well known that objects continue to decay even when they are in storage. With the popularisation of museums and increase in their activities, the chances of their decay have enhanced manifolds. If the objects are to be exhibited, they are to be studied by scholars, if they have to be transported from one place to the other, if they have to be photographed, the rate of their deterioration will naturally increase. However, for a museum, all these activities and functions are a must. Therefore, the museum profession should try to find out ways and means to meet the challenge. As a prerequisite there must be full collaboration between curators and conservators, so that techniques for the preservation of the material may be perfected and new techniques may be evolved by studying the properties of material and the processes of its deterioration. The curatorial staff should be fully conversant with the various dangers to which museum objects are subjected, how they act and how can they be avoided or their ill-effects minimised. They should have a knowledge of the composition of objects, of the properties of the material of which they are composed, and of their behaviour under different conditions.

The extent of damage to objects depends on the nature of objects and the severeness of deterioration factors. It would be required, therefore, to study these two aspects in some detail.

NATURE OF OBJECTS

Museum objects can be classified into the following three types :

(*i*) Inorganic objects, like stone, clay, metals and their alloys.

(*ii*) Organic objects, such as, wood, paper, textile, leather, ivory, bone, feathers, bark, hair and so on.

(*iii*) Paintings : Paintings are classified in a separate category because of their complex and layered structure.

It is a common observation that inorganic objects are less prone to deterioration than organic objects and, therefore, as a rule, much more care has to be taken for the preservation of organic materials than for the inorganic ones. However, from this it should not be inferred that inorganic objects do not deteriorate at all. They also decay, but at a slower rate than the organic material. Equal care has to be taken for the transportation and storage of inorganic specimens because they might break or be abraded or chipped during transportation.

There are a number of deteriorating factors that act upon museum objects continuously. When objects are placed in the open air, rain, direct sunlight, dust, wind and other extreme conditions affect them. Because of these conditions even stone carvings and sculptures slowly wither away and fall to pieces. These extreme conditions are not present inside a museum building, but there are several natural deteriorating agencies which continue to act upon objects even when they are inside. These agents of deterioration decay the objects slowly, but continuously day in and day out.

Some of the causes of deterioration are natural and some others are, what might be described as mancreated. The main natural causes are : (1) environment and climatic conditions, (2) light, (3) micro-organisms like fungi, (4) insects and (5) atmospheric pollution.

Man is also a cause for the deterioration of museum material. Bad storage, mishandling, neglect, accident in transport or otherwise and fire are some of the factors which decay museum objects. Lack of proper storage will cause textiles to be torn or paint to be flaked in paintings. Stone objects may break during transporation, if not properly packed. There are innumerable instances of destruction of cultural property due to human vandalism, due to unsightly writings on sculptures and on paintings even inside the museum.

We may now study the main factors of deterioration.

FACTORS OF DETERIORATION

Environmental Conditions

It is well-known that climatic conditions have a great influence on museum objects. Climate of a place is designated by rainfall, relative humidity and temperature. Objects housed in a museum, be they on exhibition, or in storage, are subjected to different levels of humidity and temperature. Exposure of objects to unstable environment has a great effect on their preservation. We all know that paintings and manuscripts which were kept in the dark cells of palaces and castles are often very well preserved. Fluctuations in humidity and temperature give rise to conditions which accelerate the decay of materials, like wood, ivory and bone. High humidity in the atmosphere influences the physical and structural properties of materials, particularly of the organic nature. The chemical processes of deterioration are accelerated by humidity. In the humid atmosphere micro-organisms grow rapidly (Pl. CXIV a). On the other hand if climatic conditions are too dry, objects of palm-leaves, hair, feathers and grass become brittle and fragile. Moist atmosphere favours reproduction of insects. The dimensional stability of certain types of materials, particularly those which have fibrous and cellular structure is affected by variation in the moisture content of the atmosphere. Cracks develop in wooden objects because they swell with increase in the humidity of the atmosphere and shrink with its decrease. Recurrence of this phenomenon produces severe strain on the material of wood (Pl. CXIV b). Changes in the humidity conditions of the environment causes paintings to flake (Pl. CXV a). Leather and other skin products also change in size with the moisture content of the atmosphere and thus they warp or cockle in such an atmosphere. Metals too undergo changes with high humidity. Salts like oxides, carbonates and hydroxides are formed on metals with the reaction of water vapour with oxygen and carbon dioxide. Iron and its alloys rust very quickly in humid climate.

Extensive work has been done to study the effect of humidity on museum objects. It is agreed that the micro-climates inside the museum buildings should be controlled to a constant level or, as near constant as possible. Air-conditioning of museum buildings is advocated as the best means of achieving this objective. Specifications for museum air-conditioning have been worked out. However,

air-conditioning of museum buildings is often not possible. It is beyond the reach of most museums, particularly in the countries of South and Southeast Asia. In such cases, ways and means will have to be thought of for controlling humidity in isolated areas. Similarly we shall have to give a thought to the use of show-cases with controlled environment inside. There is a need to further develop this area.

Then we should also take into account the effect of a design of a building on the climate inside. The plan of a building, its orientation, the openings, the system of ventilation—all have an effect on the climatic conditions. This is an area in which also further work needs to be done.

Light

Another factor of deterioration of objects is light—natural as well as artificial. Studies show that stone, metal and ceramics are not sensitive to light, but organic materials like paper, textiles, paintings, most of the ethnographical objects are susceptible to its effect. It is seen that light is extremely dangerous to water-colour paintings, miniatures and dyed textiles. Also, it is found that the effect of light is aggravated in humid climates and so the fading of dyed objects, such as textiles or paper is quicker in tropical conditions. Further, light is much more intense in the tropical countries than in the temperate ones. It is, therefore to be expected that light, if uncontrolled, will be much more destructive to museum objects in the tropics than in other climates.

From the above account the need for caution in the use of light is obvious. Ultra-violent rays, which are a component of light but are not in the visible range, can be eliminated. The curator, must understand the properties of the material under his charge, the nature of the light source, processes of damage by light and the effect of light on material. He must also be aware of the techniques of control of light and the precautions that he should take to minimise its effect. Devices for the measurement of light, like the light-meter and the ultra-violet monitor, should be at his disposal. Further research is needed to find out new techniques for retarding the effect of light on different types of museum materials.

Micro-Organisms

Another very great danger to the museum materials in the tropics, particularly in the humid areas, is the growth of micro-organisms. High humid conditions accelerate their reproduction. The relative humidity in parts of South India, Srilanka, Bangladesh, Malaysia, Thailand, Indonesia and some parts of Australia and New Zealand is always high. It rarely falls below 65%. In areas having monsoon type of climate, the humidity is very high, at least for a few months in the year. In such regions, therefore, deterioration due to various micro-organisms, particularly fungi is a constant danger.

We know that fungus not only weakens the material on which it grows, but it also produces stains. Sometimes it can take very serious form and then it becomes extremely difficult to deal with the situation. For example, it is almost an impossibility to remove fungus stains from paper paintings, cloth paintings or manuscripts.

The growth of micro-organisms can be controlled if the humidity of the atmosphere can be controlled within certain limits. However, it may not always be possible because of financial restraints. A number of fungicides, in a vapour form as well as in solution form, have been recommended, but excessive use of fungicides may also not be desirable because of its possible deleterious effect on the strength of the objects. The toxic properties of fungicides on museum workers should also be taken into account. Further a question often raised is the retention of the fungicide in the object.

Insects

The climatic conditions of the tropics seem to accelerate the growth of insects also. All types of insects harmful to museum objects reproduce very rapidly in these conditions. Termites (Pl. CXV b), cockroaches (Pl. CXVI a), silver fish, wood, borers, wool moth are very common in this area. The damage caused by insects in climates with high humidity and temperature is enormous in comparison to the damage caused by them in cool climates. A number of insecticides have been recommended for

control of insects. However, as with fungicides, insecticides also cannot be used indiscriminately, otherwise they might have an ill-effect on the material.

The influence of disinfecting agents on antiquities has been studied by several authors like Mori and Kumagai and Hanna Jedrzejewska. It is true that the effect of insecticides on museum objects is generally small and slow and very often can be considered an negligible. However, if these small effects are concentrated at one point, the work of art may be ruined. It is possible that a longer contact with insecticides and fungicides, even in vapour phase, may have a lasting damage. More studies are needed to tackle this problem in all its aspects. For instance, there could be an effect of heat, light and high humidity on the influence of insecticides on the materials. There should be a study of each insecticide from its biological action on insects on one hand and from chemical angle on its effect on materials on the other. Obviously, a collaboration between biologists and museum chemists is called for.

Another difficulty with insecticides is the tendency of the insects to become immune to the effect of insecticides. Also, it should not be necessary to repeat the application of insecticides too often. These are the areas in which further research is required.

Atmospheric Pollution

Several types of gases and particulate matter like dust, soot and sulphur dioxide are always present in the atmosphere (Pl. CXVI b).

Dust is a major problem in any museum giving rise to several types of difficulties. It settles on the objects and makes them not only dirty but also seat of absorbing humidity. The necessity of frequently cleaning the objects abrades their surface and weakens them. As far as possible, delicate articles ought to be displayed behind show-cases. Paintings, particularly, water colour and miniatures should be glazed. In most museums show-cases are not air-tight and as such dust can easily pass through and settle on the material displayed inside.

The danger to cultural property due to sulphur gases present in the atmosphere is well known. With the rapid industrialization, this danger is taking serious proportions. In the developing countries also new industries are being established, more automobiles are on the roads, petroleum refineries are being set up, which are very often near to museums or national monuments. The sulphurous acids produced by industrial units and motor cars has a very delecterious effect on all types of museum objects, but particularly on paper, textiles, leather and paintings. Even stone and metal are not spared.

Toishi and Kenjo have drawn attention to the danger of alkalinity present in the air inside new concrete buildings. According to them alkalinity in the air has an effect on different types of objects. Toishi has suggested that the best method of protection is "seasoning" of building. When we must exhibit or store art objects in an unseasoned building, we must exhibit them in show-cases, replacing air in the cases with clean air taken in from out-doors and then sealing them, or storing them in sealed vessels made of such materials as metals, glass or thick and dense plastics that do not let the particles pass. This phenomenon of alkalinity has not been studied in detail and needs further work. Climate certainly has a bearing on this aspect of the effect which should also be studied further.

Air-borne particles of soot very often contain absorbed sulphuric acid. If these particles settle on art objects, damage may occur.

The question of atmospheric pollution is engaging the attention of various countries because of its ill-effect on human health. A good deal of progress has been made in the search for control of industerial pollution. Various devices have been invented for the recovery of sulphur dioxide smoke from industrial waste. There are processes by which the content of sulphur gases in the waste of factories and refineries can be reduced. One can hope that such controls will be used more and more by the industrial units.

Physical Damage

Described above are some of the natural factors of deterioration of museum articles. According to my observation, however, greater harm comes to them by lack of care in handling and by improper storage conditions. One can see in many museums valuable works of art stocked one over the other,

thus abrading the surface of each other (Pl. CXVII a). Even metal and stone objects can be scratched on the surface if they are piled one on top of another. One can also see objects being transported with the help of a rope tied around them, textiles folded and stored in piles, scrolls kept one over the other and objects stored on shelves without any padding. Such examples can be multiplied. Damage due to such factors can easily be averted through creation of awareness of such dangers amongst curators and imparting proper training to them in handling and storage of objects. Unfortunately this aspect of preservation has not attracted as much attention as it deserves. As the precautions for physical care of objects seem easy and rather elementary, enough attention is not given to them. There ought to be occasional seminars and training camps on the subject. There should also be pamphlets and publications stressing the need for proper handling and storage of objects in the local languages of the countries concerned.

Besides the above problems of preservation, which really speaking fall in the domain of curatorial responsibility, lack of conservation facilities is also a very serious handicap in the maintenance of the cultural property. In each country there ought to be fully equipped conservation departments (Pl. CXVII b). I believe that, both the lack of financial resources and lack of awareness on the part of the authorities concerned, are responsible for such a situation. Equally necessary is the need for scientific research in the solution of various problems of conservation of cultural property.

In this connection need for training must also be emphasised. There is a general shortage of trained conservators everywhere. Even more dangerous to objects is probably the semi-trained conservator who in his enthusiasm may do more harm to museum objects than no conservation.

CONCLUSIONS

It would thus be seen that cultural property is damaged by natural factors like climate, light, micro-organisms, insects and so on and also by improper handling, neglect and vandalism. Unless these factors are controlled, no amount of application of preservative lotions and 'beauty treatment' is going to have a lasting effect. After the objects in a museum collection have been examined and treated, they should be kept in proper surroundings to save them from further decay.

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LIII

Preservation of Inscriptions

K.V. Ramesh

The extreme importance of inscriptions as the most vital source material for the reconstruction of Indian history from the Mauryan period downwards is easily and rightly conceded in all quarters; fresh epigraphical discoveries continue to add to our knowledge of India's past and the need to bring to light all the hitherto undiscovered epigraphical records through a crash programme is being increasingly felt and stressed in academic circles. Yet, it is a matter for grave concern that no organised schemes have thus far been evolved, let alone implemented, either at the national or at the state level, to preserve and protect the thousands of already known inscriptions and the thousands more which are sure to be discovered in the years to come. That such a scheme is the need of the hour and should actually have been chalked out and implemented much earlier, is incontrovertible, for, it is becoming increasingly clear to all epigraphical explorers, professional as well as free-lance, that every year the country suffers the loss, either in full or in part, of an unknown number of inscriptions, either due to exposure to the vagaries of the climate or due to human avarice, vandalism or even mere igonorance.

Accidental or wanton destruction of epigraphical records has a long history. To quote only one interesting episode, we may refer here to the episode of the Nidhanpur plates[1] of Bhaskaravarman, the king of Kāmarūpa. Towards the end of the 6th century A.D., this ruler issued a charter, from his headquarters a Karṇasuvarṇa; for reasons not known, the copper plate set was burnt and lost. Soon, however, but we do not know how soon, the text of the charter thus lost was got re-engraved. The opening verse reveals this fact when the composer says '*Karomi bhūya sphuṭavācharh=ujjvalaṁ*'. Being a later copy, it was but natural that the script and style of writing differed from those of the destroyed document. The composer, therefore, concludes the text with a verse in which he says that since the text of the burnt charter has been re-written subsequently, the difference in characters should not lead anyone to dismiss the charter as spurious :

śāsana-dahad=arvag=abhinava-likhitāni bhinnarūpāṇi /
tebhyo=kṣarāṇi yasmat=tasman n=aitāni kuṭāni //

As an instance of an interesting historical document getting damaged owing to indvertance, reference may be made here to the sorry fate of the Rataul plate[2] of Chahadadeva of the Chahamana dynasty (Pl. CXVIII a). The learned editor of this fragmentary plate says "The plate, which is said to have been inbedded in a domical structure nine or ten feet below the surface, was broken to pieces by the diggers and all the fragments are said to have been lost. This is much to be regretted, for, as it will appear from the sequal, the inscription incised on the plate was of considerable interest".

Human ignorance has played a major role in the destruction of numerous epigraphical documents. A graphic instance at hand is the fragmentary Śārada inscription[3] from Hund, Attock District, Pakistan, which is of great importance for the early history of the North Western region of the sub-continent since it contains details (much of it now lost) regarding a crucial battle fought by a king named Anantadeva against the Turuṣkas in the second half of the 8th century A.D. (Pl. CXVIII b). The discovery of this

inscribed slab has a long history of more than thirteen decades. The existence of 'blocks of marble containing inscriptions traced in characters quite unknown to its inhabitants' at Hund was first noticed by M. Court who, however had no opportunity to study the inscriptions. Subsequently, when captain Burnes visited Hund he prepared facsimilies of four inscriptions and made them available to James Princep. According to the captain the marble slab on which the inscription of Anantadeva is engraved "had found its way into a Moslem building, though originally in a Hindu temple. A follower of the faithful made a mortar of it and hence the round hole, in which the barbarian pounded his *massala* (culinary condiment). If only this important epigraph had been preserved intact, it would have added much to our knowledge of early Indian history.

Not long ago three ancient charters[4], each consisting of a single copper-plate, were accidentally discovered under the ground surface by a farmer while tilling his field on the outskirts of the town of Sanjeli, Zalod Taluka, Panchmahal District, Gujarat. One of them is dated in year 3 obviously of the Gupta era and belongs to the reign of the Huna ruler Toramāṇa; the other two are dated in the years 6 and 19, obviously of the same era and refer themselves to the administration of *Mahārāja* Bhuta and *Mahārāja* Mātridāsa, of whom the former was a fendatory of Toramāṇax. These plates are of great import for the early history of North India and have been saved for our study almost from the jaws of destruction. For, the person who found these plates initially thought that they could be of gold. In order to identify the metal, he is said to have heated the plate of Toramāṇa in an open fire made of cowdung cakes. On realising that the plates were not of gold and hence, in his estimate, not of great value, he simply beat them up to fold them into their one third size so as to accommodate them in his small hand bag. Fortunately for us, the plates subsequently found their way into the Department of Archaeology and Ancient History of the M.S. University, Baroda, where, through preservence and scientific treatment, the plates have been restored to their near original state. Thus three documents of immense historical value have been saved from destruction and total loss.

Such facts as have been just now narrated underline the great need and urgency for evolving foolproof methods for collecting and preserving inscriptions which, in the case of copper-plate inscriptions, is possible, and in the case of stone inscriptions, is beset with seemingly insurmountable problems; while copper-plate sets could be saved from loss or damage and preserved for our own use and for posterity by the establishment of a Central Depositary, preferably in the Chief Epigraphist's Office, with facilities to track down and mandatory powers to acquire all available carters, published as well as unpublished, one practical way of protecting and preserving stone inscriptions, particularly the stray ones which do not form integral parts of any larger structual monuments, appear to lie in the establishment of spacious Epigraphical Parks in each Tahsil town where, under the benign shade of the green wood trees can be set up all such stray stone inscriptions as are found in any given Tahsil area. Besides ensuring better protection for epigraphical monuments, which otherwise face the danger of destruction or damage, such Epigraphical Parks will also serve as long-spaces and contribute to the much needed improvement of our nation's ecological, environmental and climatic conditions.

This fervent appeal has been made for the planned preservation of epigraphical documents in the sure knowledge that the best place for such a plea is the felicitation volume being presented to a humanist-archaeologist who has done so much for the conservation and preservation of archaeological and historical monuments in India and elsewhere.

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CONSERVATION IN TROPICS



a. Rapid growth of Micro-organisms on painting.



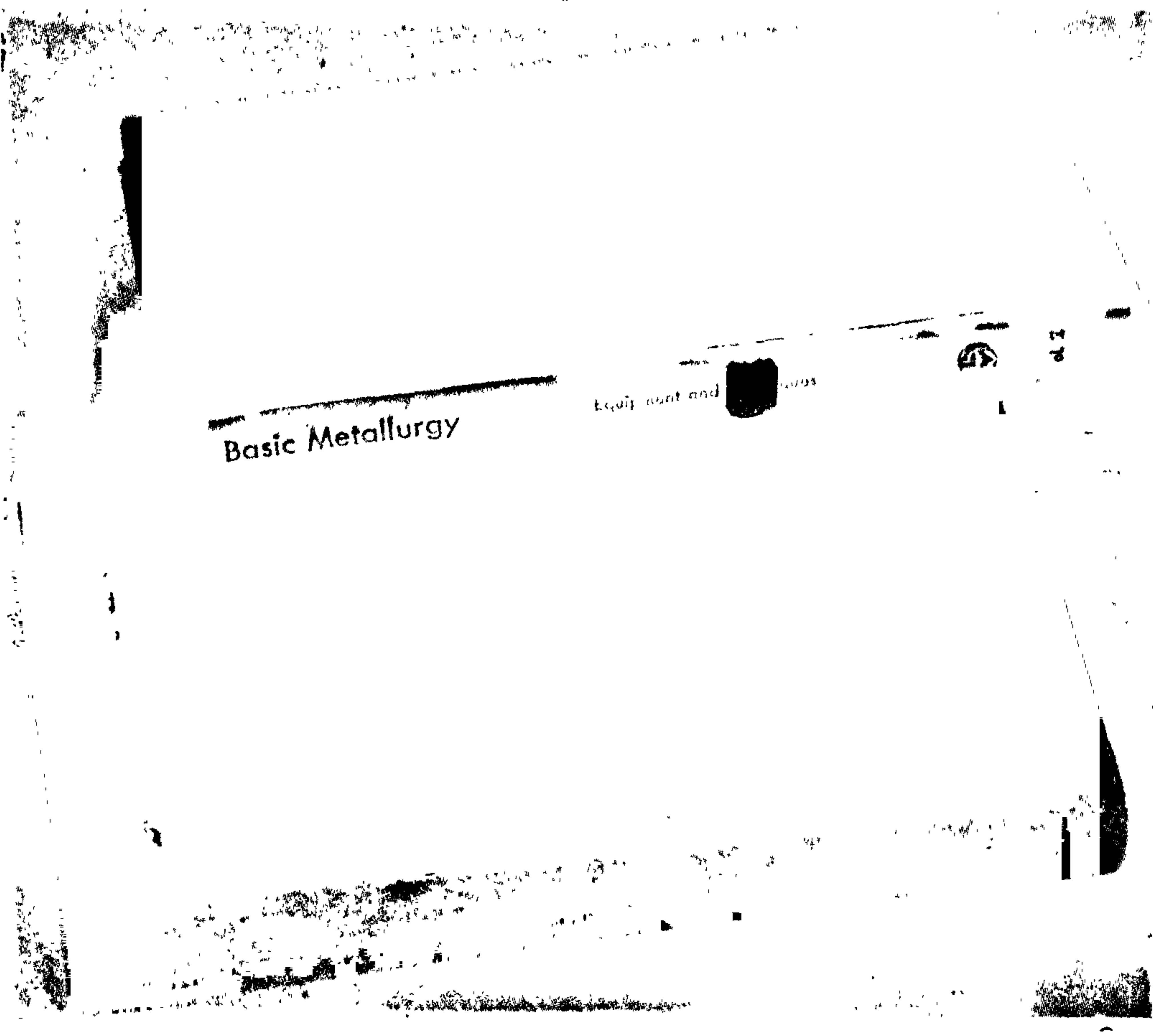
b. Developing of Crocks causing strain on wood.



a. Flaking of paintings in humid conditions.



b. Attack of termites and Cockroaches on books.→



a. Attack of termites and Cockroaches on books.



b. Atmospheric Pollution by factory chimneys.



↑ a. Improper storage of cultural objects causing physical damage.

↓ b. Equipped conservation Laboratory.



a. Rataul Plate of Chahadadeva (*EI*, Vol. XII).

b. A fragmentary Śāradā Inscription from Hund (*EI*, Vol. XXXVIII).

CONSERVATION OF A CHOLA TEMPLE--TENNERI

KANDALIŚVARA TEMPLE



a, View from east before jungle clearance.

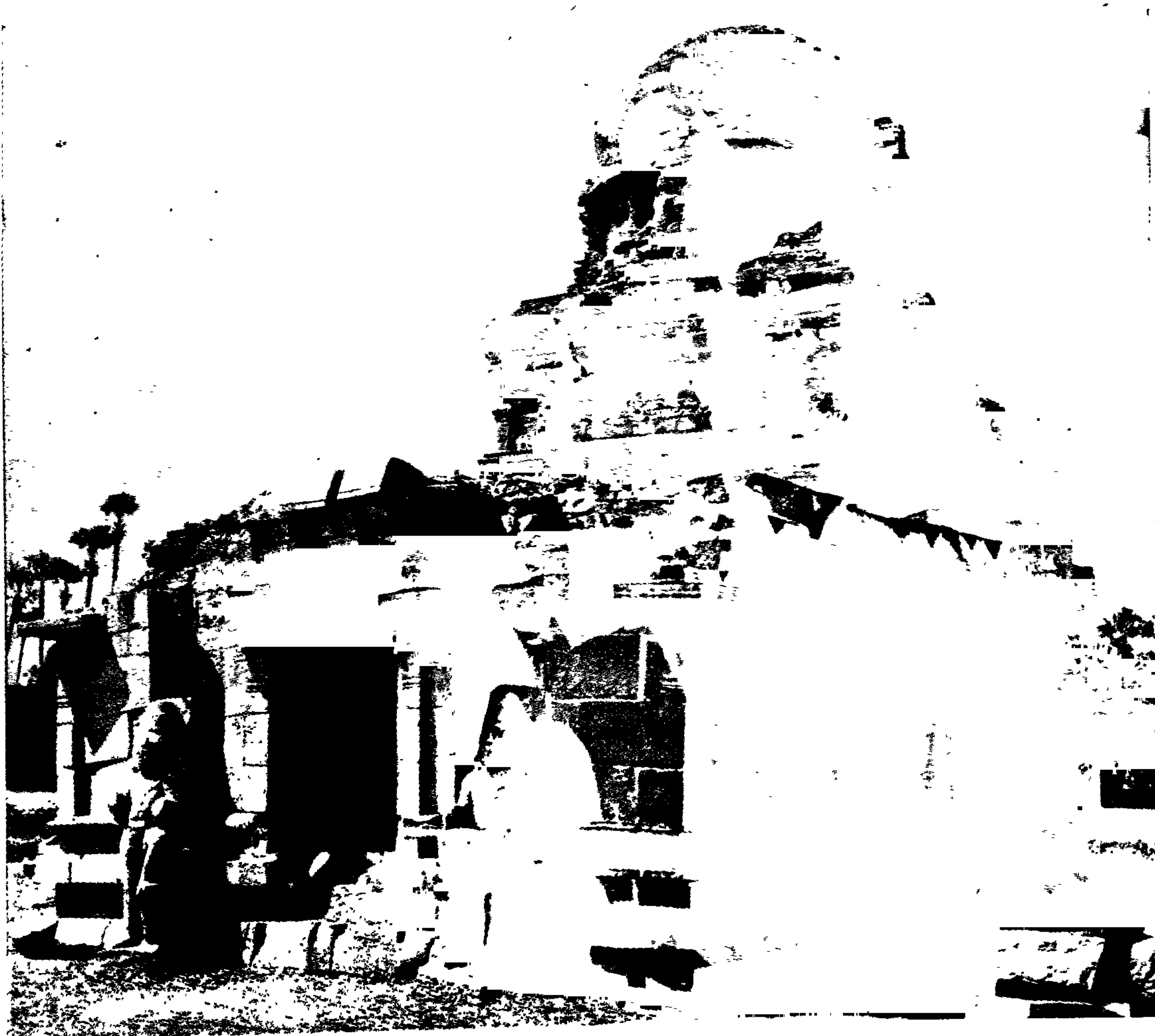


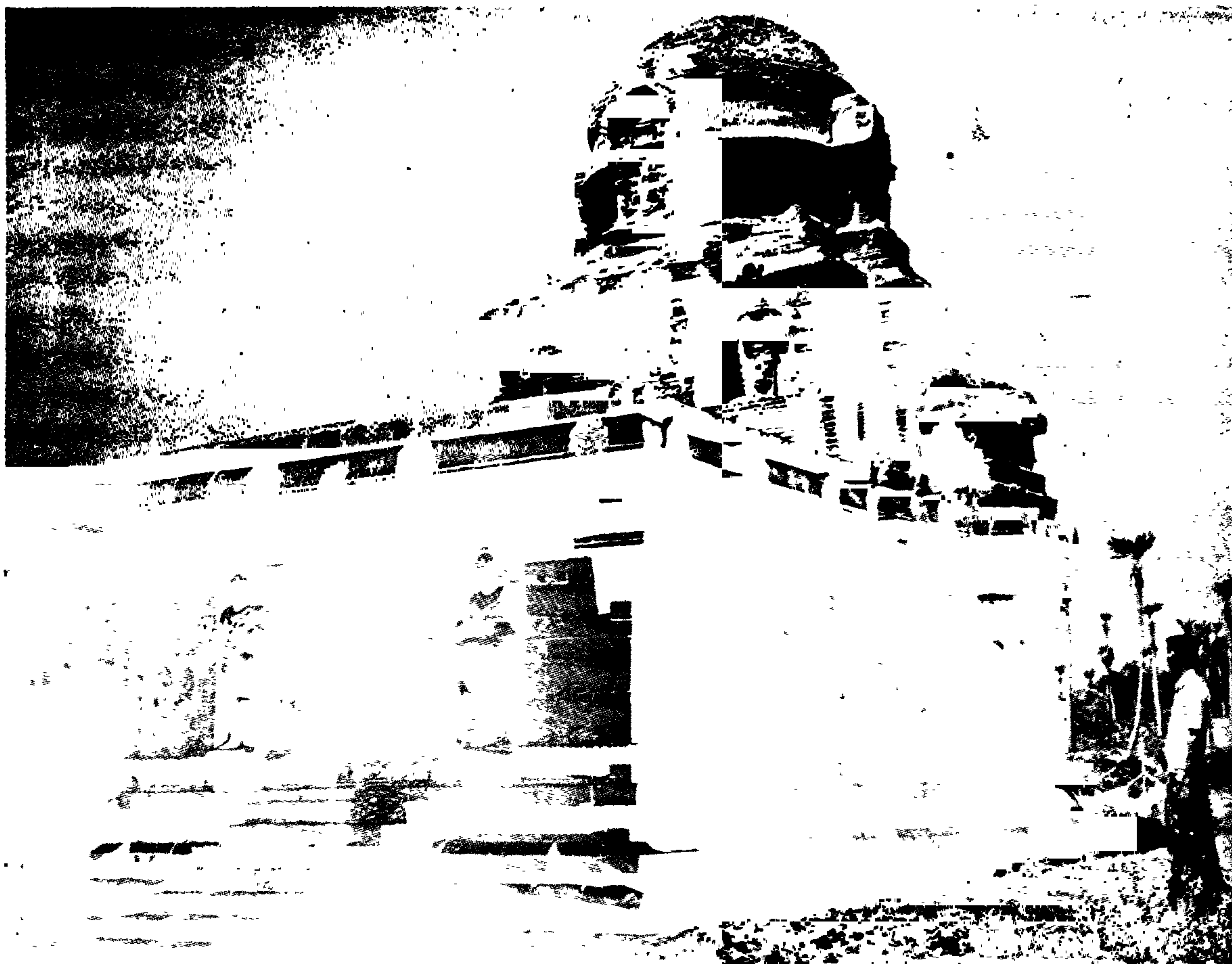
b, View from south-east before jungle clearance.



↑ a. During conservation.

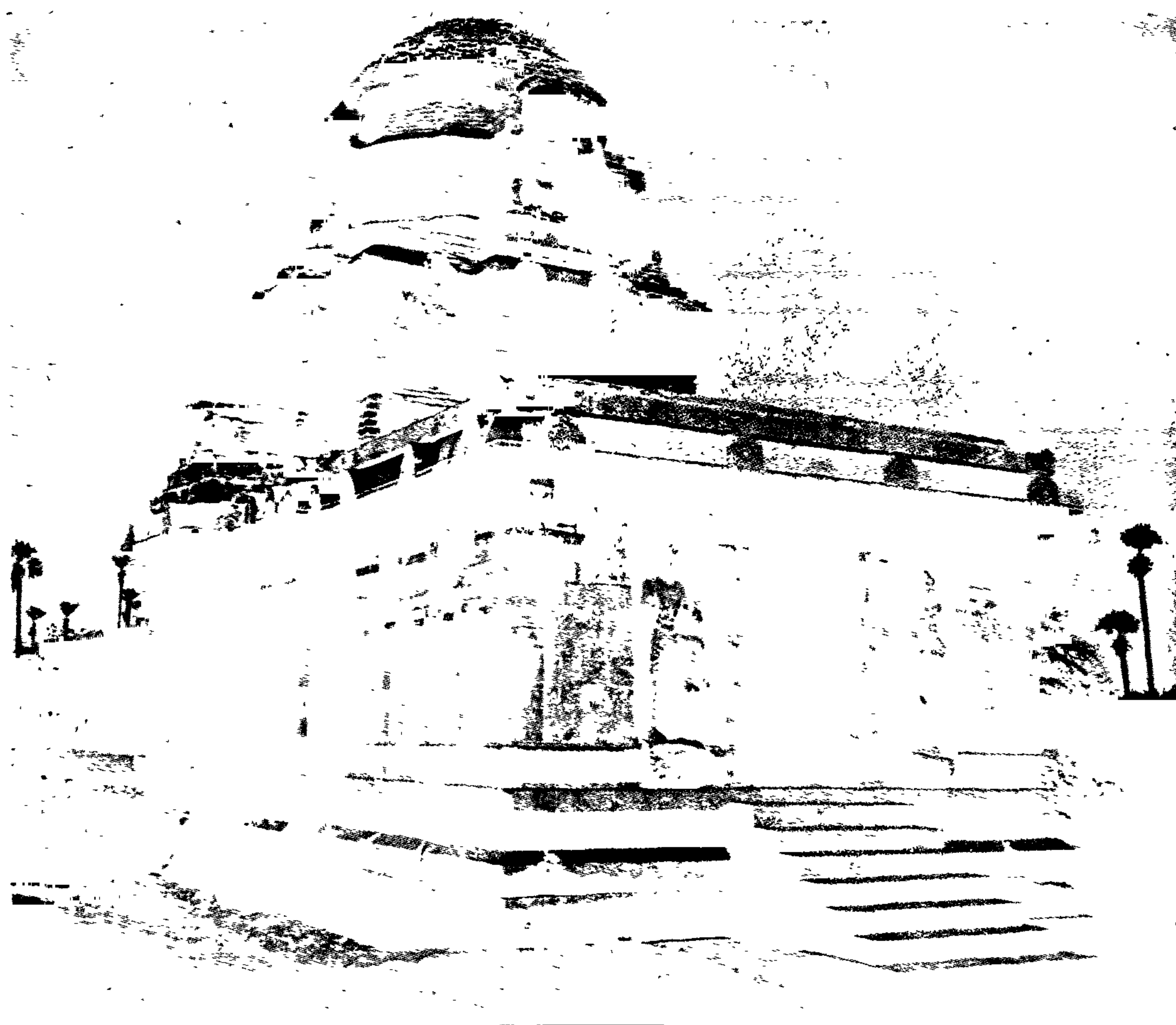
↓ b. Close up during conservation.





↑ a. After conservation—View from North-east.

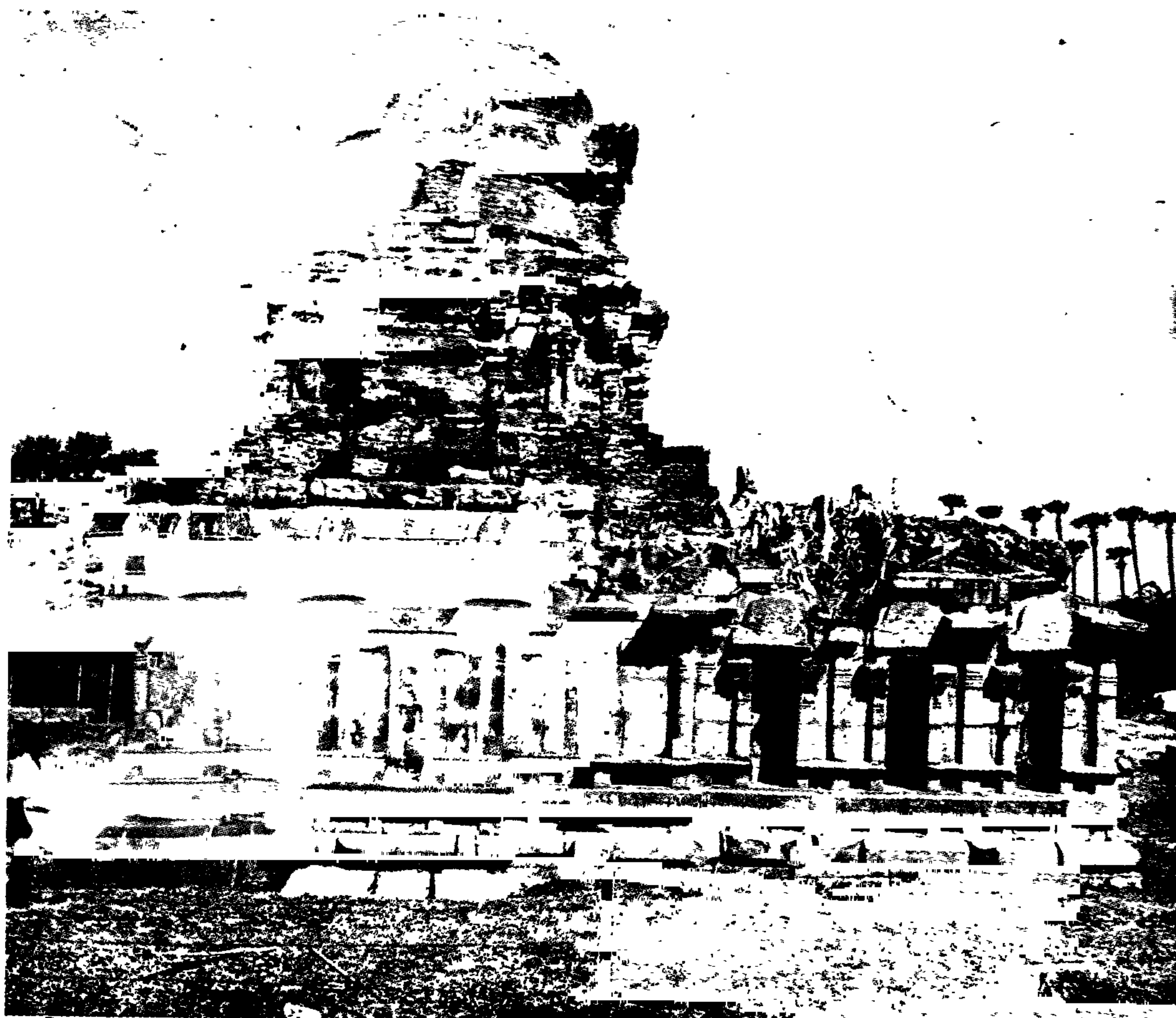
↓ b. After conservation—View from South-east.





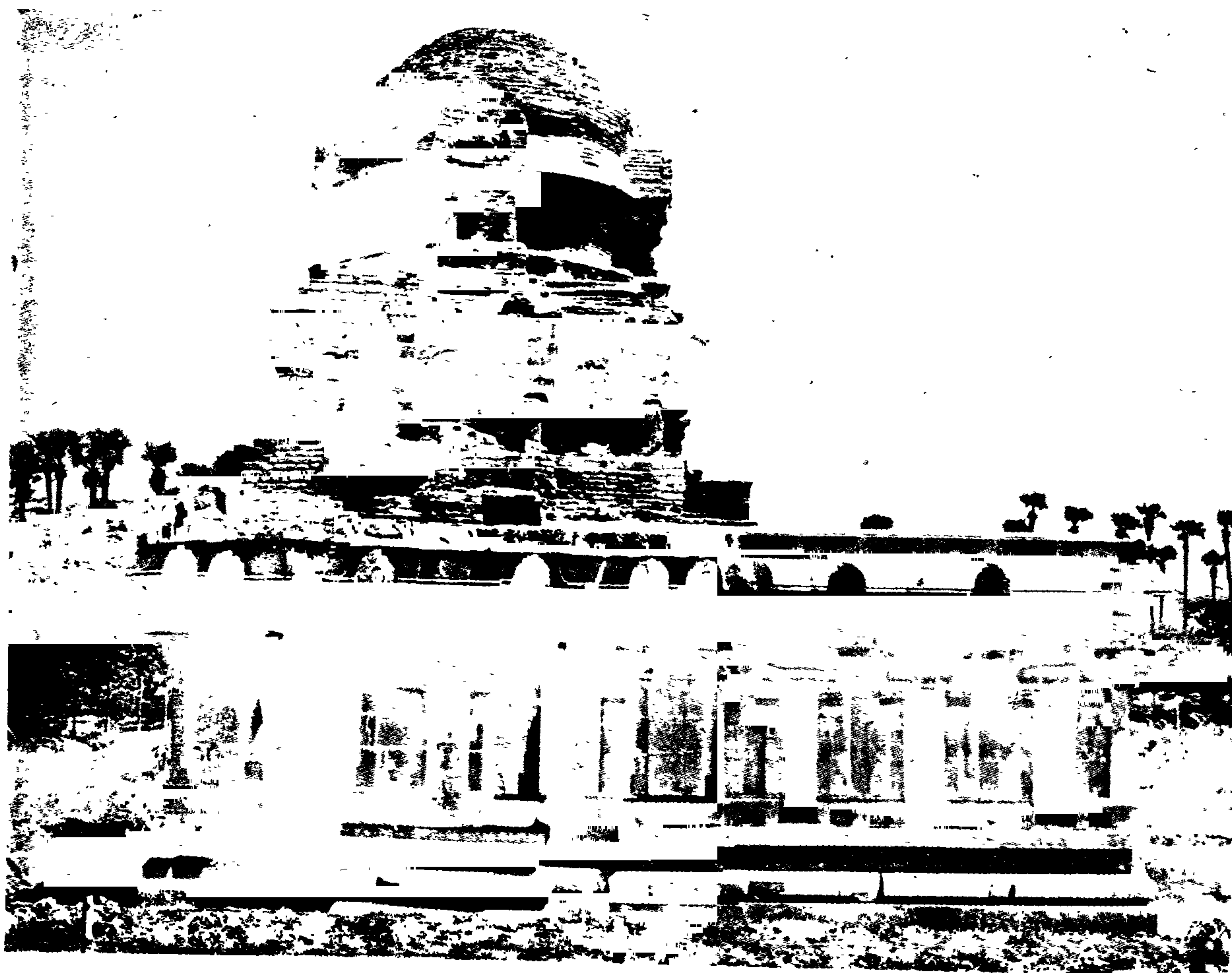
↑ a. View of the ardhamaṇḍapa—during conservation.
↓ b Close up of Pīṭha—south side showing roofs.





↑ a. Ardhamaṇḍapa and Śikhara—before conservation.

↓ b. Ardhamaṇḍapa and Śikhara—after conservation.



LIV

Conservation of Kantalingesvara (Kandalisvara)—A Chola Temple at Tenneri, District Chingleput

L.K. SRINIVASAN

Tenneri (Lat. 12° 50′ N; Long. 79° 55′ E) is situated about 8 kms south of Sunkuvar Chathram on NH-4 connecting Madras and Bangalore. Although a small and insignificant village now, it was a flourishing place with fertile agricultural fields and irrigation facilities in historical times. Set amidst picturesque surroundings with green paddy fields and a vast irrigation lake closeby, Tenneri seems to have been a place of importance as early as the Saṅgaṁ period as attested by its very name *Tenneri* which indeed is a corruption of the original term *Tiraiyan Eri*, *Tirayan* being the name of a chieftain of the Saṅgaṁ period. It definitely figured as an important place with the names of *Uttama-Chola-chaturvedimaṅgalaṁ* and *Kulottunga-Chola-chaturvedimaṅgalaṁ* during the period of the Imperial Cholas particularly Uttama-Chola (A.D. 970-85), as evidenced by the extant architectural remains and the numerous inscriptions thereon. It seems to have maintained its importance even during the Vijayanagar times during which period, one Kumara Tatacharya (first quarter of the 17th century A.D.) got the irrigation lake nearby enlarged and its sluice repaired. Subsequent to Vijayanagar times, the place seems to have faded into insignificance.

There are two temples in this village both dedicated to Śiva, deserving attention from the archaeological point of view as they happen to date back to the Chola period; one a comparatively larger and better preserved structure known as Anantīśvara or Āpatsahāyeśvara located in the centre of the village and the other a smaller one known as Kaṇṭaliṅgeśvara (Kaṇdalīśvara) located on the outskirts of the village. There was possibly a third shrine also within the precincts of the village, but excepting for a few sculptures of Saptamātṛkās nothing else remains of this structure. We are concerned here with the smaller Śiva temple referred to as Kandaliśvara in the inscriptions which, architecturally speaking, is a piece of beauty and contains some of the most handsome sculptures.

The temple faces east and consists axially a square *garbagṛha* and a closed *ardha maṇḍapa* connected with the former by a narrow *antarāla* all raised over a low plinth. Externally the walls of the *maṇḍapa* and *garbagṛha* are relieved by a row of *devakosṭhas* separated by pilasters, numbering four each on its northern and southern sides and one on the western side. The temple is built of stones for its basal part and of bricks for its superstructure. Upto the level of the *prastara* (entablature), the construction is of granitic gneiss and the *dvitala vimāna* superstructure above the *prastara* level is of brick, relieved externally by stucco figures formerly and internally it shows a system of corbelling (*kadalikakaraṇa*). In view of its important architectural and epigraphical contents[1] this temple was declared as a protected monument by the Government of Madras Presidency—vide Government Order No. 438 Public dated 25th June 1909 (where it is named the Lesser Śiva temple at Tenneri).

Even at the time of its protection the temple of Kaṇṭaliṅgeśvara must have been in a state of ruin due to long neglect calling for urgent conservation measures, as would be clear from the fact that the temple was included as long ago as 1917 in the list of ancient monuments of Madras Presidency selected

for conservation since it was then classified as a Class II Monument (vide Conservation Manual p. 3). No doubt the temple did receive some periodical attention in the form of vegetation clearance, application of tree-killer for eradication of roots and prevent recurrence of the growth of vegetation and grouting of cracks in the masonry to strengthen the structure and water-proofing till 1946-47. But apparently these measures, particularly the application of Atlas tree-killer does not seem to have had the desired effect for long. Subsequently till about 1975 the temple does not seem to have received much attention as is evident from the condition of the monument which stood in 1975 in a grave state of ruin with its surroundings overgrown with rampant vegetation, obscuring the beautiful structure which could not even be approached easily (Pl. CXIX a-b).

In the year 1975-76 after a lapse of long time the temple received some minor attention in the form of clearance of rank vegetation from the surroundings of the temple to provide proper access to it and fencing of the protected limits. Around this time the National Service Scheme sponsored by Union and State Governments, envisaging student involvement and participation of our rich cultural heritage and incidentally a general awareness among the public of their cultural property as well infusing in them a sense of pride in preserving them had gained considerable momentum. The scheme proved fruitful in regard to many of our ancient monuments in general in Tamil Nadu, particularly the Dharmeśvara temple at Maṇimaṅgalaṁ, Kaṇḍalīśvara temple at Tenneri and Bṛhadīśvara temple at Thanjavur, to mention only a few, received such help from the student community. The Madras University students of the Department of Ancient History and Archaeology and the Department of History under the leadership of Dr. K.V. Raman, volunteered to work at the Kaṇṭaliṅgeśvara temple, Tenneri. Working on two separate occasions under the guidance of the Officers of the Survey, the student volunteers applied themselves to carefully eradicate the vegetation from over the temple as well as its surroundings. The process of removal of vegetation from over the partly stone and partly brick built structure, the masonry of which had been rendered loose and over-hanging, was by no means an easy job but by careful work, the students succeeded in doing a good job of the same. It is worthwhile recording here that the enthusiasm of the Madras University student volunteers was so infectious that the young boys and girls of the local school also joined them to lend a helpful hand in the work.

The eradication of vegetation from over the temple and its surroundings may in a sense be regarded as the first phase of the recent conservation activity relating to this temple. While the N.S.S. volunteers could be allowed to eradicate minor vegetation growth, the removal of a huge *pipal* tree grown on the roof terrace of the *maṇḍapa*, being a delicate operation had to be done by the Survey's expert hands for fear that any haste or carelessness in the process of lopping off the tree could result in total danger to the precariously standing structure by the shearing action. The tree had to be lopped down, branch by branch including its trunk by careful sawing but leaving a small stump of the trunk with roots to be dealt with later. If done simultaneously it would leave a void that will make the remedy worse than the disease.

When an illustrated report about the work done by the N.S.S. volunteers under the guidance of the Circle, *vis-a-vis* the structural condition of the monument was sent to the then Director General, Shri M.N. Deshpande, he was so impressed by the tidy work done by the volunteers that he desired that the good work done by the student volunteers be followed up by comprehensive structural conservation of this fine temple. The stage was thus set for initiating the second and most important stage viz., structural conservation.

A close examination of the structure, as an obvious pre-requisite before initiation of conservation measures, to understand the nature and extent of damage, causes for the decay or damage and the choice of remedial measures within the ambit of accepted archaeological norms open to us revealed the following :

(*a*) The unchecked growth of trees and other rank vegetation for many years had caused serious damage resulting on dislodgement and cracks both in the ashlar and brick masonry. The thickening and penetrating roots of the *pipal* tree which had taken hold of the roof terrace of the *maṇḍapa* in their course along the thickness and height of the wall to the ground below, had not only widened the masonry joints causing fissures thereon extending over the entire height of the wall but also had

dislodged masonry courses in the upper half and had shattered the inscribed stones constituting the *kumuda* or moulded torus courses of the *pīṭha*. A similar state obtained in respect of the brick work of the vimāna (Pl. CXXII a-b).

(*b*) Extensive seepage of rain water through the cracks and fissures in the *vimāna* as well as the *ardhamaṇḍapa* had contributed considerably to the decay and weakening of the core in general and brick work in particular which in turn had affected the internal stability of the structure.

(*c*) The flooring of the shrine had subsided badly and the large *Liṅga* occupying the shrine had tilted, and

(*d*) the shallow foundation originally provided seemed to have got disturbed by the subsequent rise in the water table in the area, consequent on continued wet cultivation very near the temple.

The nature of construction and the extent of damage as taken note of above, left us with two options :

(*a*) to strengthen the structure without attempting to dismantle it, and

(*b*) to dismantle the structure course by course and reset the courses in conformity with the old clues.

In regard to this temple both the measures were suggested for application as may be possible and necessary.

(*a*) The *ardhamaṇḍapa* which was the worst affected part was proposed for complete dismantling course by course including the foundation and restoration of the same on a firm bedding, after completely eradicating the roots that were entangled in the core and joints of the masonry besides making the roof watertight after supplying the ashlar stones in missing gaps on the outer facing, cornice and parapet along the outer edge of the roof.

(*b*) The brick masonry which did not easily lend itself for dismantlement and re-erection was proposed to be attended and strengthened by under-pinning, grouting and pointing without in any way meddling with the remnants of stucco figures thereon.

(*c*) Resetting of the floor of the shrine and putting the *Liṅga* back in its correct position.

The proposals were accepted and cleared for execution in the year 1977. However, before the actual commencement of the work, a number of problems relating to both men and material had to be solved :

The most important of these problems related to employment of qualified and trained *sthapatis* (traditional temple architects) among the skilled labour. Initially it was felt that employment of *sthapatis* was not necessary and that ordinary stone masons would do for the purpose. But on a reconsideration of the matter for the reason that the services of the *sthapatis* would be most essential not only for sorting out the fallen members of the masonry and identifying the proper place to which they should be restored on the structure, but also for making proper documentation and drawings as well as ornamental and semi-ornamental stone members to be supplied in the missing gaps their employment was favoured. However, in conformity with the accepted and generally followed practice of the Survey it was decided that only such of the members which have a definite functional purpose alone, must be replaced in so far as supplying of stones in missing gaps is concerned, that too without reproducing the ornamental details except in the barest outline where necessary. Thus in the present case all the cornice or *kapota* and parapet (*hāra*) stones that were missing were decided to be replaced in view of their functional nature. Only the outlines of the *kudu*-arch motif on the *kapota* or cornice stone were decided to be reproduced and the *vyālavari* course in masonry gaps on the outer fecade of the parapet were decided to be supplied with plain blocked out stones without the *vyāla* figures thereon.

It may be observed in this context that in South India wherever the building of a new temple or restoration of an old temple is concerned, the essential need for a *sthapati* for such purposes is generally well recognised. Particularly in the work of restoration of ancient temples his services are bound to be useful and advantageous, more so where the work involves sorting out from the debris various architectural members and determining the places to which they originally belonged besides preparing new stone members exactly matching with the old in size and shape with or without the ornamental

details. There are broadly three classes of *sthapatis* viz., (*a*) those who specialise in stone work and stone buildings; (*b*) those who specialise in brick and stucco work, and (*c*) those who specialise in bronze and metal casting. In so far as the availability of all three categories of *sthapatis* is concerned, South India is better served as there are still living families that are active in their craft and a number of institutions which conduct regular diploma courses to train them in the work. It is even more fortunate that such trained *sthapatis* are available for casual engagement for short terms on specific work.

In this particular case, there was need for two different types of *sthapatis*, one for the stone work and the other for brick work. While the *sthapatis* for stone work were available at Mahābalipuraṁ, the *sthapatis* for brick work had to be contacted and brought all the way from the Devakoṭṭai in Ramanathapuram District. Similarly, in view of the paucity of skilled and semi-skilled labour force in the small village, almost all of them had to be assembled here from the nearby town like Kanchipuram and Chingleput.

A limited operation like the present one did not call for the use of any heavy or sophisticated tools. However, for hauling down the heavy granite veneer stones from their position and putting them back, normally the use of chainpulley block with tripod, would have been favoured. In the present case, however, it was decided to use the traditional local device of using the palmyrah tree trunks propped against the wall and acting as inclined planes so that the heavy veneers could be slide down over them and again up with the help of a pulling rope. This method was found to work effectively, economically and safely.

The procurement of raw materials particularly the texture and shade of the stone that would match with the surface weathered or patinated stone used in the original construction and the special size bricks required for repairs and under-pinning of the brick portion of the *vimāna* super-structure posed problems.

The stone used in the construction of this temple is commonly known as 'granite' and in geological terms granite gneiss of an intermediate variety. In order to select the stone which would closely match with the stone used in the original construction (it would be impossible to match the original stone 100% as freshly quarried stone would in any case show slight difference in colour to the stone which has undergone surface weathering) all the quarries nearby were visited in the company of the *sthapati* mason and the rock examined. Ultimately it was found that the quarry near the village Arapakkam (40 kms south-west of Tenneri) on Chingleput-Uttiramerur road, yielded the stone closely resembling in colour and texture of the original. It was from this quarry that all the stones needed for use in the restoration work was procured. This also afforded the minimum 'lead' from quarry to site, a factor of cost.

In regard to bricks needed for the repairs and under-pinning of the brick portion of the *vimāna*, it was found that the quantity of special size brick required was too small to have them made to order. It was, therefore, decided to have the available modern bricks chiselled, rubbed and finished to the required size and thickness on the advise of the *sthapati* for brick work.

In so far as the mortar was concerned, it was decided to use in the place of the original ground lime mortar, a combination mortar with the small quantity of cement for imparting additional strength and quick setting property. While it was decided to dismantle the terrace and the walls of the *ardhamaṇḍapa* including the foundation courses two beams spanning the width of the *ardhamaṇḍapa* which stood undisturbed were decided to be retained in position by masonry supports in preference to hauling them down, since they would also act as the guide members in the restoration work as they were in place.

With the above preliminaries including detailed documentation of exterior and interior in the form of drawings, photographs and dimensions of missing stone members that were to be supplied (only in respect of *ardhamaṇḍapa*), the process of dismantlement course by course was started. Particular care was taken while dismantling the moulded stones of the *pīṭha* as they contained inscriptions. During the course of clearing the debris an image of Gaṇapati and broken portions of the moulded stone containing inscriptions were recovered. An interesting feature that was observed after dismantling the foundation course was that the structure had hardly a foundation depth of 0.38 meter which comprised of a single course of stone laid over a layer of sand, over which the further courses were built. From this it is obvious that the builders considered such a shallow foundation as adequate for the purpose at the time of laying it, since according to the architectural canons—the *śāstras* a temple was to be built over the most

elevated ground in the village and at the time of its active use was surrounded by the house-sites (*nattam* land as opposed to cultivable land). As such they did not apprehend any slipping of the sand and consequent subsidence of foundation. The sub-soil water table on an elevated site remained at a comparatively lower level and construction over such a site was chosen. It is the subsequent rise in the water table caused by the enlargement of the lake and its storage in Vijayanagar times and the extension of cultivated paddy fields around upto the base of the temple in which water is stagnant for most part of the year, that might have caused the sand filling of the foundation to slip which incidentally affected the foundation and the structure above.

In view of the above factors, it was decided to deepen and strengthen the foundation which was done by providing an initial layer of sand upto a thickness of 0.15 m, over that a layer of cement concrete in the ratio of 1 : 3 : 6 mixed with water-proofing compound to a thickness of 0.24 m and a course of stone were laid before the lowest course of the original construction was started.

The reconstruction of the superstructure of the *ardhamaṇḍapa* including the ceiling slabs and water-tightening of the roof top with a layer of brick jelly and two courses of flat tiles was completed in accordance with the original work. The under-pinning of the brick portion of the *vimāna* and water-tightening the same after grouting the cracks was indeed a very delicate job which the *sthapatis* for brick work completed with commendable skill. On the exterior face of the *vimāna*, damaged stucco figures were not restored. These were strengthened by filleting the extant remains and edging to the extent possible.

The floor of the *garbhagṛha* and the *ardhamaṇḍapa* were laid to proper level and the disturbed *pīṭha* of the *Liṅga* was restored to its original position. The *dvārapāla* images which were originally placed in the tall niches on either side of the entrance door of the *ardhamaṇḍapa* had been dislodged and were found lying on the ground. Similar was the case with the *Nandī* on the front side. The beautiful *dvārapālas* and the *Nandī* were restored to their original positions. The entrance door was provided with typical temple type door in teakwood. With the above measures, it has been possible to restore this monument to a large extent to its original shape.

REFERENCE

1. There are five inscriptions on the *adhiṣṭhānas* of the temple, four of them relating to the period of Raja Rājā I (A.D. 985-1014) and the remaining one of that Vīrarājendra (A.D. 1062-1070).

G. General

LV

Perhaps the Earliest Jaina Terracotta so far excavated in India

B.B. LAL AND S.K. SRIVASTAVA

Under the national project, 'Archaeology of the Ramayana Sites', the Indian Institute of Advanced Study, Simla and the Archaeological Survey of India jointly carried out excavations at Ayodhya in District Faizabad, Uttar Pradesh, during January-March 1977. The work was directed by the first author while the second participated as a Research Assistant.[1]

Ayodhya is situated on the right bank of the Sarayu river, which was perhaps a major trade-route in ancient times, as indicated by the discovery at the site of sherds of the Rouletted Ware (ascribable to the early centuries A.D.) which was more at home at ports on the eastern coast of India. On the basis of the excavations, the antiquity of Ayodhya, however, goes back to the time when a very distinctive highly shining pottery, known as the Northern Black Polished Ware, was just beginning to emerge and the well known Painted Grey Ware was dying out. These earliest levels may be dated to the end of the eighth or the beginning of the seventh century B.C.

Besides pottery, the excavations yielded a number of datable objects from various levels, such as half-a-dozen seals, a number of coins and over two hundred terracotta figurines. From amongst the last-named, we here describe and discuss the significance of a particular figurine (Pl. CXXIV).

The figure is broken below the waist and thus nothing categorical can be said about the disposition of the lower part. However, from the fact that the arms go vertically downwards, it would appear that it was a standing figure and not a seated one. The extant height is 6.7 cm and the breadth at the maximum 4.5 cm. The figure is not in the round; the back side is flat, from which fact it appears that it was cast in a mould. Like most other terracotta figurines of the period, it is of grey colour, indicating that it was fired under reducing conditions in the kiln. The clay is fine-to-medium-grained and well levigated.

The figure under discussion comes from a layer which lay about 50-64 cm below another layer from which a charcoal sample has yielded a C^{11} date of 180 ± 100 B.C.[2] While there is no standard basis for correlating the thickness of occupational strata with a period of time, experience shows that the 50-60 cm thick deposit intervening between the terracotta figure and the layer datable to 180 B.C. may have taken a century or so for its accumulation. Thus, the figure may well be assignable to the beginning of the third century B.C., if not somewhat earlier.

The figure has a roundish face, bald or shaven head, shaven upper lip, open eyes, long ears, youthful body and long hanging arms. Most of these features are significant pointers. For example, the long hanging arms (*ajanulambabahu*) are suggestive of the figure being in what is known as the *kayotsarga mudra.* Such a disposition at once reminds us of the standing figures of Jaina Tirthankaras of whom this is a very characteristic feature. The prominently elongated ears are again characteristic of divinities, as against those of common human beings. This feature, therefore, also lends support to the figure being that of a divine personage—a Tirthankara being one such divinity. In fact, the Tirthankaras are usually shown with elongated ears.

As regards the shaven head and shaven upper lip, it may be stated that while discussing the image (*bimba*) of a Tirthankara the *Pratishthasarasangraha* (4, 4) states that there should be no hair on any part of his body, not even a line for the moustache :

Kakshadiromahinangama smasrulekhavivarjitam[3]

Thus the shaven head and shaven upper lip of the figure under consideration go very well with the canonical description of the image of a Tirthankara.

The prominent chest of the present figure, indicative of youth, finds an indirect support from the *Pratishthapada* which mentions that a Tirthankara should not be carved out either as an old man or as a boy, but as a youth. This text also says that he should not have nails or hair, thus concurring with the aforesaid prescription of the *Pratishthasarasangraha.* The following is the relevant quotation from the *Pratishthapada* (151) :

Vṛiddhatvabalyrahitangamupetasantim
Srivṛikshabhushihridayam nakhakesahinam

Nudity is a very noteworthy feature of the images of Jaina Tirthankaras. Unfortunately, however, the figure under consideration is broken below the waist. Thus, nothing positive can be said in the matter; at the same time it may well be that the figure was a nude one.

One might raise a point about the open eyes, saying that if it was the image of a Tirthankara, the eyes should have been only half-open. Here attention may be drawn to the fact that whereas the half-open eyes were no doubt characteristic of the later images of Tirthankaras, this was not invariably the case with the earlier ones. In this context may be cited the Jaina images recovered from Kankali Tila, Mathura[5], wherein the eyes are fully open and not half-closed as, for example, in the case of another image.[6] The former images date back to first century A.D.

Another objection against the proposed identification of this figure with that of a Jaina Tirthankara can be that it does not have the *srivatsa* symbol. It may, however, be pointed out that the *srivatsa* symbol was not always a must. For example, it is absent from the Tirthankara images of Tamil Nadu and West Bengal.[7]

From the foregoing discussion it would appear that in all probability the terracotta figure under consideration represents a Jaina Tirthankara; which one it was. it is difficult to say, since the lower portion, in which the *lanchhana* could have been depicted, is missing.

One might now raise another question, namely : do we have any evidence about Jina figures having existed so early as the 3rd-4th century B.C. In this context, a reference may be made to the Hathigumpha inscription of King Kharavela of the second century B.C. It says that the king invaded Magadha and brought back the Jina image which had been carried away by the Nanda king[8]. It is thus evident that Jina images existed as far back as the 4th-5th century B.C.

As regards an actual example of an early Jaina image, one might recall the broken polished figure from Lohanipur near Patna. The nude torso in all likelihood represents a Jaina Tirthankara. It is ascribable to the Mauryan period. *i.e.* the 3rd century B.C.[9]

That image-making was in vogue in India as early as the middle of the 1st millennium B.C. may be gleaned from certain literary references. For example, the *Ashtadhyayi* of Panini, usually assigned to the middle of the fifth century B.C., clearly refers to the representation of deities, although their names are not specified[10]. Likewise, the *Arthasastra* (*circa* 4th-3rd century B.C.) refers to the abodes of various gods, such as Aparajita, Apratihata, Jayanta, Vaijayanta, Siva, etc.[11] Here it may be worthwhile to add that gods like Aparajita, Jayanta and Vaijayanta are identical with Jain gods mentioned in the *Anuttarayimana*[12].

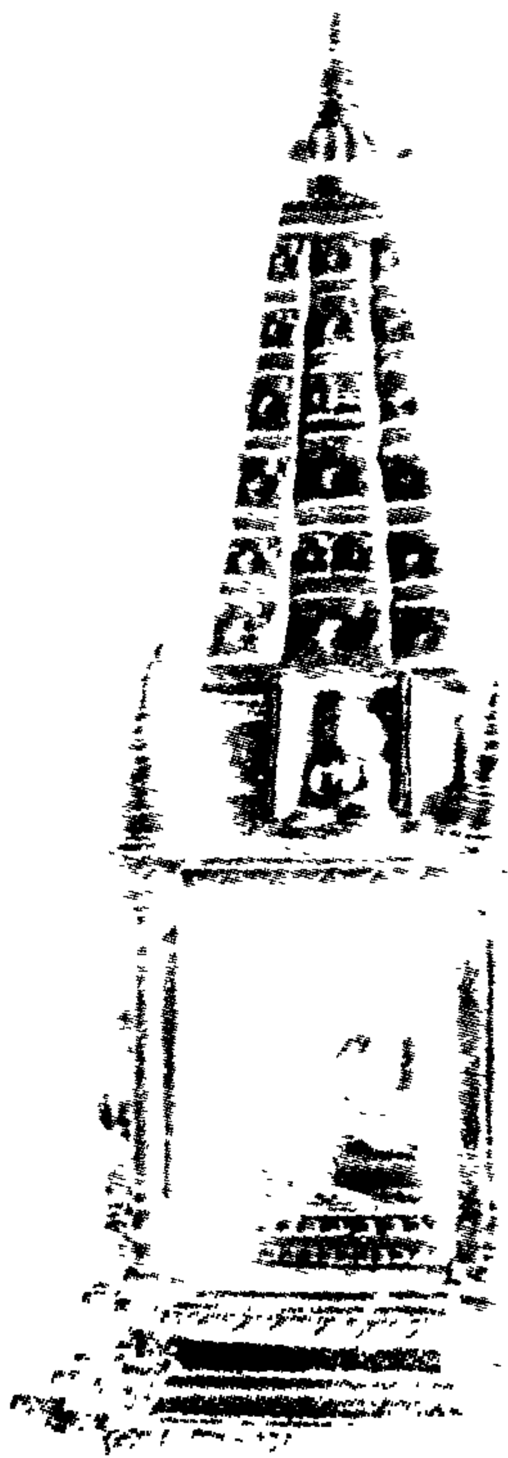
A special note has also to be taken of the fact that the figure under consideration is in terracotta and not in stone, nor is it of a large size. Sizable stone images would normally be expected to be installed in a place of public worship. On the other hand, the present image, being in terracotta, which is a folk art, suggests that Jaina religion had percolated to the common man's level at Ayodhya around the 4th-3rd century B.C. This should not be surprising since Ayodhya is traditionally known to have been the birthplace of three Tirthankaras, namely Abhinandananatha, Sumatinatha and Anantanatha, respectively fourth, fifth and fourteenth in the chronological order[13].

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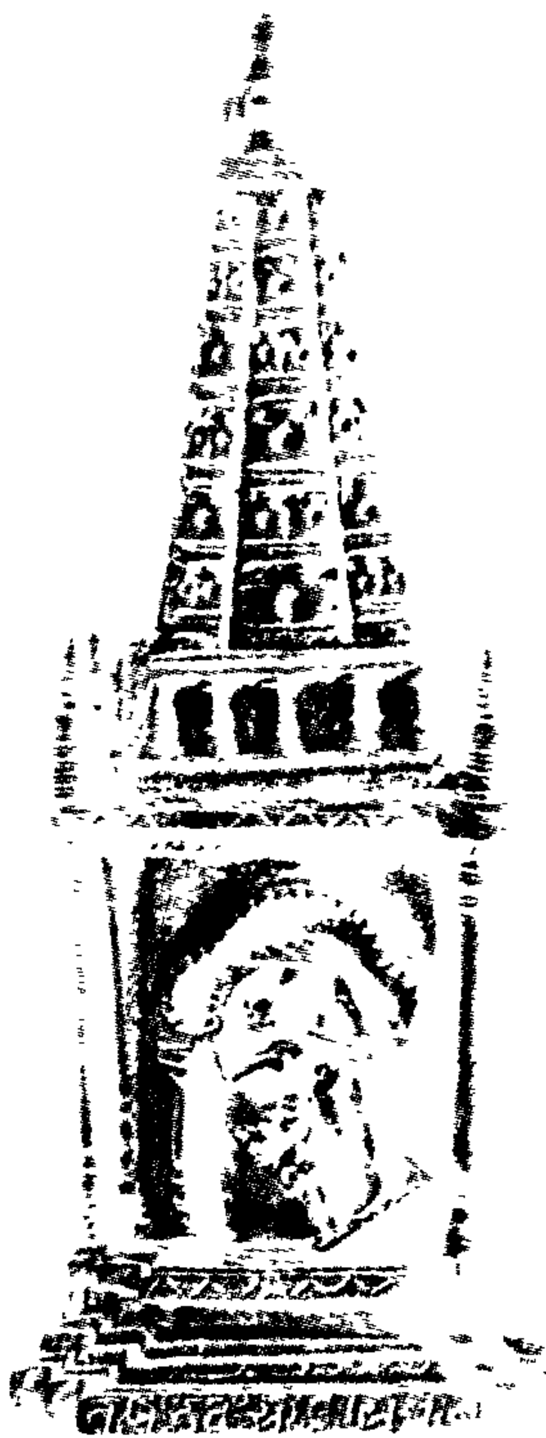
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2. Date supplied by Physical Research Laboratory, Ahmedabad.
3. Cf. B.N. Sharma, in, Bhattacharya, B.C., *The Jaina Iconography*, Delhi, 1974, p. xxi.
4. *Ibid.*, p. xx.
5. Smith. V.A., *The Jaina Stupa and other Antiquities of Mathura*, Allahabad, 1901, pl. XC, figs. 1 and 2.
6. *Ibid.*, pl. XCII.
7. Sivaramamurti, C., 'Geographical and Chronological factors in Indian Iconography', *AI*, No. 6, p. 46.
8. Jayaswal, K.P., 'Hathigumpha Inscription of the Emperor Kharavela (173 B.C.—160 B.C.)', *JBORS*, Vol. III, part iv, p. 465.
9. Bhattacharya, B.C., *op. cit.*, pl. I.
10. Agrawala, V.S., *Panini Kalina Bharatavarsha* (Hindi), Varanasi, 1969, p. 352.
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12. Bhattacharya, B.C., *op. cit.*, p. 17.
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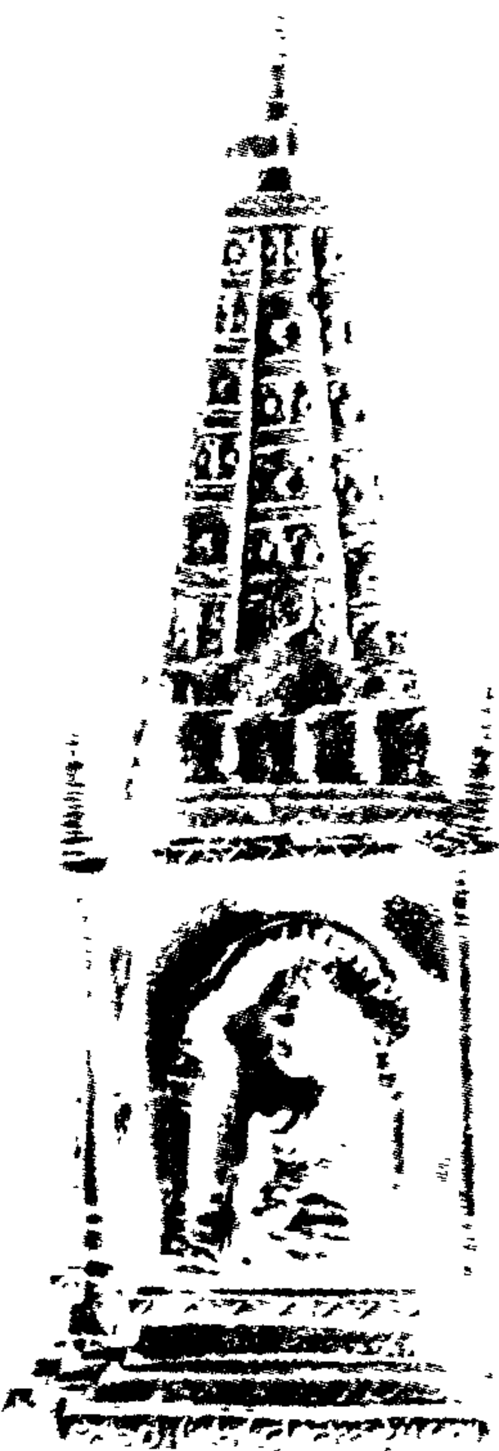
Ayodhya : Jain terracotta, *c.* 4th-3rd cent. B.C.



a



b



c



d

a—d. Jaipurgarh : four sides of a miniature temple.

LVI

A Miniature Reproduction of the Mahabodhi Temple from Jaipurgarh

DEBALA MITRA

A miniature metal temple[1] (Pl. CXXV) and also eleven metal images and a stone image of Gaṇeśa were found within an earthen pot in 1976 at Jaipurgarh (District Gaya, Bihar) by a local person during the course of his digging at a mound for collecting earth for erecting the mud wall of his house. All the antiquities are now in the Gaya Museum under the State Government.

Situated near the east bank of the rivulet Dhadhar, Jaipurgarh or Jaipur (Lat. 24° 35′ 20″ N; Long. 85° 15′ E), within the Fatehpur Block, is at a distance of about 5 km south-east of the railway-station of Paharpur (between Gaya Junction and Gomoh Junction); this railway-station is 33 km to the south-east of Gaya Junction. As the mound at Jaipur has not been excavated, it is not possible to determine whether the metal objects accidentally unearthed here were cast locally or were brought from the well-known workshop of Kurkihar which is only 26 km (as the crow flies) north of the railway-station of Paharpur.

As is well-known, the Mahābodhi temple at Bodh-Gaya is the holiest of the holy shrines of the Buddhists. Such was the sanctity of this temple that not only temples in imitation of its form were built but miniatures reproducing roughly the broad features of this temple were made for the purpose of worship and earning merit. One of the extant temples built after the model of the Mahābodhi temple is the sacred Mahābodhi Pagoda constructed at Pagan in the first half of the thirteenth century A.D. Apart from the reliefs of the façade of the Mahābodhi temple found on terracotta plaques, there are several stone and metal miniatures in the round.

One of the metal miniatures was brought to light during the excavation of a monastery (No. 11) at Nalanda;[2] unfortunately, its middle portion was found missing. Though the preservation of the metal miniature from the hoard of Jhewari[3] (District Chittagong, Bangladesh) is satisfactory, the four niches facing the cardinal directions are now empty and the topmost member of the crowning elements has disappeared. The specimen from Jaipurgarh, though small and of inferior finish as compared to the one from Jhewari, has retained most of the original features. This miniature (Gaya Museum Accession No. 76.8) is highly interesting in view of the fact that its affinity with the Mahābodhi temple is closer than the other two metal miniatures.

This miniature temple (nearly 15 cm high) is made of three major component parts (cast separately), one forming the base, the second the perpendicular portion (*bāḍa*) forming the walls and ceiling of the sanctum and the third the *śikhara* (*gaṇḍi* and *mastaka*). Four projected rods or bolts (roughly circular in section) issuing from the corners of the base of the *śikhara* pierce the flat ceiling of the middle component. Similar rods, also four in number, projecting from the bottom of the *bāḍa* penetrate into the base.

The base, *tri-ratha* on plan, has two mouldings in the form of a *khurā* and a *paṭā* with a recess in between. While the body of the *khurā* is decorated with lotus-petals, the *paṭā* (band-like moulding) has a row of angular incisions. The face of the bottom band below the *khurā* bears a dedicatory inscription in characters of the twelfth-thirteenth century A.D.

Above the base and enshrined within the sanctum sanctorum formed by three vertical walls is Buddha seated in the *vajra-paryaṅkāsana* attitude on the pericarp of a *viśva-padma* (Pl. CXXVa). Robed in an *antarvāsa* with a portion spread on the seat in the form of a fan and an *uttarāsaṅga* which has left his right chest, shoulder and arm bare, Buddha, with half-closed eyes, a grave facial expression and elongated ears, is in the *bhūmisparśa-mudrā* with his right palm touching the seat, the left palm resting on the lap. The *uṣṇīṣa* is conical, but the curls of the hair are not visible. The ceiling of the sanctum is flat.

Against the exterior side of all the three walls of the sanctum is a trefoil arch (with its inner edge indented) resting on the abacus over the capitals above two pillars. The tapering shafts (circular in section) of the pillars rest on *ghaṭa*-shaped bases. Within these three arches and pillars are depicted three of the important incidents from the life of Buddha. The representations of these three incidents were cast separately and fixed to the plain exterior walls of the sanctum; the ends of two of the three rods or tenons (circular in section) projecting from the back sides of the figures are visible on the inner side of the walls of the sanctum.

The first side wall, as one turns anticlockwise, presents the Nativity of Buddha (Pl. CXXVb). Here the sparsely-ornamented Māyādevī, wearing a *śāṭī*, is seen standing on a thin pedestal with her left leg stretched and bent right leg behind the left leg. With her left arm extended, she is holding the branch of perhaps a *śāla* tree. From the right side of her abdomen has issued Gautama; standing on the pedestal and close to the figure of Gautama is a male figure (Śakra?) with folded hands.

The incident depicted on the back side represents the Great Enlightenment (Pl. CXXVc). Buddha is attired in an *antarvāsa* with a portion spread on the seat and an *uttarāsaṅga* which has left his right arm, shoulder and chest uncovered. He is seated in the *vajra-paryaṅkāsana* attitude on the pericarp of a lotus with a single row of petals, his right palm in the *bhūmisparśa-mudrā* touching the seat and the left palm resting on the lap. The workmanship of the figure with half-closed eyes, elongated ears and a grave face is not of high order. The curls of the hair covering the head and the *uṣṇīṣa* are either left unrepresented or defaced. A part of the upper terrace above the trefoil arch over this particular image has a perforation containing within it a short rod or nail (upper surface broken). Evidently, this rod was used for fixing the trunk of the *Bodhi* tree, now missing. It may be noticed that a part of the *śikhara* above the row of the pilasters of this side is left undecorated; this part had originally the branches of the *Bodhi* tree, which was cast separately and fixed to the terrace.

The third side presents the First Sermon (Pl. CXXVd). Buddha, with an *antarvāsa* (a part spread on the seat) and an *uttarāsaṅga* covering both shoulders, shows the *dharmachakrapravartana-mudrā*. With half-closed eyes, elongated ears, auspicious lines round the neck and the conical *uṣṇīṣa*, he is seated in the *vajra-paryaṅkāsana* attitude on a plain seat. Below the seat is a wheel flanked on either side by a deer, indicating the venue as *Mṛgadāva* (modern Sarnath) where Buddha preached his First Sermon.

Rising above the base are four columns, two resting on the *khurā*-shaped moulding of the base and the remaining two (front ones) placed on thin pedestals above the base of the temple. The tapering shafts (circular in section) of these columns have *ghaṭa*-shaped bases. Their moulded capitals support the bottom of the corners of the *tri-ratha* upper terrace, the vertical face of which is decorated with a row of angular incisions.

There are four *stūpas* at each of the four corners of the terrace. These *stūpas* have a moulded circular base, a high drum with mouldings, a low shouldered dome, a plain *harmikā* and a *chhatrāvali* of gradually-diminishing discs with a conical member at the apex.

The superstructure of the temple above the upper terrace presents the form of an elongated pyramid truncated near the top. The edges are sharp. The lowest part of this superstructure has a row of thirteen pilasters with moulded bases and capitals and tapering shafts (circular in section), one each at four corners and three each on three sides, the fourth side (front side) having an oblong niche. The pilasters rest on a set of two mouldings and support a moulded entablature. Within the niche of the front side is Buddha, seated in the *vajra-paryaṅkāsana* attitude on a plain seat, in the *dhyāna-mudrā*.

Each side of the *gaṇḍi* above the entablature is divided into three by two vertical recesses, the three divisions being in one plane. These divisions have a succession of *chaitya*-window motifs (single or double),

separated by plain oblong bands. By their succession, six stages (or *bhūmis*) have been formed. Above the top stage is a set of two plain band-like members.

The crowning elements above the band-like sealing member consist of a recessed cylinder (*beki*), an *āmalaka* and a *stūpa*, the last with a high moulded drum, a low shouldered dome, a plain *harmikā* and a *chhatrāvali* of gradually-diminishing discs.

Attached to the *āmalaka* is a ring, through which presumably passed the staff of the banner.

The dedicatory inscription on the bottom band of the base of the miniature starts on the front side and runs anticlockwise on the remaining three sides. The characters of the inscription are the precursors of the modern Bengali script. The reading of the inscription appears to be as follows :

(1st side) *siddham*[1] *deva-dharmmoyaṁ dā-*
(2nd side) *napati vaṁ sādha(dhu) selhala-*
(3rd side) *suta-devekasya ga-*
(4th side) *talasāñcha.*

Selhala, the father of the donor Deveka, might be identical with Selhe, the husband of Sini-aka who donated an image of Vishṇu (Gaya Museum Accession No. 76.18) found in the same hoard. The name of Selhe is preceded by *dānapati va sa(sā)dhu.*

As already noted, this miniature is more akin to the Mahābodhi temple than the one from Jhewari. In fact, there are certain major differences between the two miniatures. In the specimen from Jhewari, there is a mild curvature of the *gaṇḍi*, on the top of which are lions. In the present miniature, the *gaṇḍi* with sharp edges is in the form of an elongated pyramid truncated near the top as in the case of the Mahābodhi temple. The flight of four steps giving access to the top of the platform of the miniature from Jhewari are absent here. The *gaṇḍi* of the former starts immediately above a recess over the cubical part of the temple, while in the miniature from Jaipurgarh the *gaṇḍi* rears up from the top of the upper shrine-chamber, the three exterior walls of which have pilasters. The specimen from Jhewari with its four deep niches or chambers (which evidently held images of either Dhyāni-Buddhas or more probably of Buddha himself in different *mudrās*) of identical size is of the nature of the *sarvatobhadra* temple and can hardly be regarded as a miniature replica of the Mahābodhi temple which has a single entrance to the sanctum of the ground floor. As in the case of the Mahābodhi temple, the miniature from Jaipurgarh presents two shrine-chambers at two different heights. Within the main chamber which is at the ground-floor level is the presiding image of Buddha in the *bhūmisparśa-mudrā*, while in the upper chamber is Buddha in the *dhyāna-mudrā*. Against the outer sides of the three solid walls of the main shrine-chamber are represented three important incidents from the life of Buddha. The Nativity and the First Sermon, as already noted, are shown against the two side walls, while the back wall presents Buddha once again in the *bhūmisparśa-mudrā* (symbolizing the Enlightenment). The representation of Buddha in this *mudrā* against the back wall is most probably suggested by a figure of Buddha[5] in the same *mudrā* against the central part of the back (west) wall of the Mahābodhi temple; close to this wall is the *Bodhi* tree. This particular image was intended to represent Buddha obtaining Enlightenment under the *Bodhi* tree, the trunk and branches of which, as already suggested, reared over the terrace above the image. In this connection we may recall the stone miniature[6] of the Mahābodhi temple found in the excavation around the Mahābodhi temple at Bodh-Gaya and illustrated by Cunningham. In this miniature we find the *Bodhi* tree above the back side of the terrace below which is a chamber which might have enshrined an image of Buddha in the *bhūmisparśa-mudrā*. Another stone miniature in the collection of a person at Patan (Lalitpur, Kathmandu Valley) also presents the *Bodhi* tree above the terrace.[7]

The miniature from Jaipurgarh bears four small *stūpas* at the corners of the terrace at the first floor-level. Immediately below the *stūpas* and supporting these very corners are the columns. The present miniature replicas of the main spire at the corners of the terrace of the Mahābodhi temple (which underwent several large-scale repairs) were constructed in the eighties of the ninteenth century on meagre evidence. From this miniature it may not be unreasonable to assume that there had been *stūpas* (and not temples) at the corners of the upper storey of the Mahābodhi temple at least in the period when this miniature is made. In this connection it may be noted that the fifth phase (about sixth century A.D.) of the main temple of Nalanda has four *stūpas* at the corners of the top of the terrace; these corners of

the terrace present pilaster-like projections supporting the *stūpas*. Instead of the projections we have in this specimen from Jaipurgarh columns which might have been adopted for convenience of casting.[8]

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1. This miniature has been briefly noticed by Chitta Ranjan Prasad Sinha and Bhagwant Sahai in *The Journal of the Bihar Purāvid Parishad*, vol. I, 1977, pp. 164 and 181-83.
2. ARASI for the years 1930-31, 1931-32, 1932-33 and 1933-34, Part Two (Delhi, 1936), p. 280, pl. CXL (*a*). Another metal shrine was found in a *kankar* quarry at Chandipore near Patharghata (District Bhagalpur); cf. *Journal and Text of the Buddhist Text Society of India*, vol. II, part II, 1894, pp. ii and iii.
3. ARASI, 1927-28 (Calcutta, 1931), p. 184 and pl. LVII (*a*).
4. Expressed by a symbol.
5. A. Cunningham, *Mahābodhi or the great Buddhist temple under the Bodhi tree at Buddha-Gaya* (London, 1892), pl. XIV, lower illustration. In this illustrated photograph, the pedestal below the figure of Buddha is seen resting partly on the eastern side of the outer *vajrāsana*.
6. *Ibid.*, pl. XVI.
7. *The Journal of the Bihar Purāvid Parishad*, vol. I, 1977, pp. 163 and 164, pl. XII.
8. Photographs published in connection with this article are the copyright of the Archaeological Survey of India.

LVII

Roman Sites in Tamil Nad : Recent Discoveries

R. NAGASWAMY

That the Roman settled on the Coromandal coast of Tamil Nad, towards the beginning of the Christian era, has been established by excavations at Arikkamedu, near Pondichery first by the French Archaeologists and later by Sir Mortimer Wheeler. Detailed reports of this find have appeared both in India and the West[1]. Earlier the find of large number of Roman coins in Tamil Nad, appearing as Treasure Troves *did* attract the attention of scholars, who were able to asses their importance in relation to the references in classical works like Pliny. Recent explorations and excavations by the Tamil Nadu State Archaeological Department, has brought to light three important sites in Tamil Nadu revealing Roman contacts.

VASAVASAMUDRAM

The first one is Vasavasamudram, a village eleven miles south of Mamallapuram. The site is two kilometre from the mouth of the Palar river, a principal river in *Tondai Mandalam* region. Kanchipuram, the celebrated city of the South, is connected to the sea, through the Palar river at this site. It is well known that Kanchipuram attracted people from far and near even from the time of Asoka in 3rd Century B.C. An accidental discovery led to the finding of evidence of Roman contact at this site. The owner of a site, found large heaps of shells under the earth in his garden while digging. He threw away the potsherds and earthern ware and collected the shells for lime. The matter was reported to the author and on examination of the site proved to be of some interest. An emergency excavation at the site, by the author brought to light many potsherds and brick structures, resembling in detail the findings at Arikkamedu. The important finds are the conical vases,[2] rouletted ware of both Mediterranian and indigenous origin, a well preserved neck portion of an amphorae of Mediterranian origin, a much damaged brick structure with drain pipes and two ring wells close to each other as found at Arikkamedu. The presense of amphorea and rouletted ware, and other assemblages point to the Roman contact, though the excavated site seems to have been occupied for a short period towards 3rd Century A.D. This assumes significance in the light of Roman coins found at Mamallapuram.

KARUR

The second site of greater significance is Karur, in Trichy district, where the Tamil Nadu State Department of Archaeology, conducted evcavation for three seasons. Karur is well known to the students of Tamil History as the Capital of the Chera rulers of the Sangam age. Several hundred Roman coins have been found in Karur over hundred years age. It is an industrial town and is built up over the ancient settlement on the banks of river Amravati (*An Porunai* of the Sangam classic). Large scale Excavation of the site is rendered difficult due to paucity of open grounds.

A house site with a brick flooring and a drain adjoining a brick structure were found. But the important finds are several potsherds with Tamil-Brahmi inscriptions, assignable to the beginning of the Christian era. The Earliest deposit is black and red ware, rolled by the river sand. The inscribed

potsherds occur with sherds of Roman amphorae and rouletted ware of Mediterranian origin. Another important find in the same level is the moulded pottery of Kaolin (white clay) usually found in Roman sites in the West Coast. At later levels occur russet coated, painted black and red ware. A solitary arratine sherd also attests to the Roman contact.

The recent excavations at Karur by Tamil Nadu Archaeology Department should be viewed in the light of finds in and around Karur. About 20 Kilometres from Karur is the hillock called Arunattarmalai (Pugalur) where ancient Tamil-Brahmi inscriptions are found on the rock bed and also on the overhanging rock. It refers to three generations of Chera rulers, Ko-Adan-Cel-Irumporai, his son Perumkadungo and his son Ilamkadungo. Ilamkadungo made the abode for the jain ascetic Senkayapan of Yarrur where he was crowned young Prince. These three Chera rulers are identical with the Cheras of the Sangam age. Further the inscriptions also refer to a gold merchant of Karuvur. It is evident that the modern Karur in Trichy district was the Capital of the Cheras of the Sangam age and that it had a flourising gold market.

The find of Roman amphorae, Arritine ware, rouletted wares, inscribed ware with Brahmi letters, Kaolin wares and the innumberable literary references point to the role of Karur as capital of the Cheras, in the Sangam age. Among the Tamil Kings of the Sangam age, it was the Chera dynasty which came into contact with the Romans on a greater scale. It is therefore of considerable interest, in addition to literary reference, the recent archaeological excavations, confirm the Roman contact with Karur, the Capital of the Cheras of Sangam age.

KODUMANAL

The third site of importance is Kodumanal, a village in modern Periyar district, about 40 kilometres from Erode. The place abounds in semi precious stones and rock-crystals. Explorations at the sites reveal that the village has been a factory site for making beads and other object of precious and semi precious stones and crystal objects. Several hundred beads of various sizes, made of moon stone, cats-eye, rock crystal Beryl and other stones have been found. Prismatic objects of rock crystals used as pendents with suitable holes are also picked up in large numbers. The exploration of the site by the Tamil Nadu State Archaeology Department has brought to light black and red ware, and potsherds with Tamil Brahmi inscriptions, assignable to 1st-2nd Century A.D. The surface find includes an arretine ware and rouletted ware of Mediterranian origin, which is of considerable significance. The occurance of Black and red ware and russet coated ware has been noticed earlier.[3] The exploration in the village revealed the existence of several Menhris and Cairns. Some of the Menhris are over 12 feet in height.

The presense of Menhris, occurrence of inscribed Black and red ware and also arretine ware and rock crystal objects prove that the site had been of great significance in the beginning of the Christian era.

It is of interest to mention that in the Sangam work, this village finds a mention as Kodumanam. Two verses in *Padirru Pattu* 67 and 74, extelling the greatness of the Chera ruler mention this village and state that the Chera gifted jewellery of this village Kodumanam to poets. Obviously the village was famous for its jewellary even in the Sangam age and that it occupied a place of pride in the Chera Kingdom.

The Village is not far away from Karur the Capital of the Cheras, discussed earlier. Another village 'Padiyur' is about six miles from this village, and is already known as the main source of beryl and rock crystal objects for the Romans during the Christian era. Warmington makes special mention of this site.[4] Some of Warmington's observation on Roman Contact is worth recalling.

"Romans showed a taste for excessive decoration of the fingers and by the use of gems to cover conches, garlands, armour, walls and so on. The practise of collecting gems became common during the first Century B.C. and Scaurus, Julius Ceasar, Marcellus, Maecenas, Vespasian and Hadrian were collectors. All who could afford one obtained a gems signet from the guilds of ring makers, and the gem cabinet was an essential part of every rich home. The poor used glass imitations, the rich bought the largest and rarest genuine specimens and the imperial house encouraged the new art of cameo-engraving".[5]

"The 'asteria' of India and 'Carmania' or else the 'Semi lampis' which was supposed to be found in the Euphrates, included apparently the quartz, and cats-eye which comes to Combay from near Madras, from Burma and perhaps from Malabar".[6]

"Pure crystalised silica or rock crystal which was in use in very early times was obtained in Alabanda, Uithosia, Cyprus, perhaps Red sea regions and later on the Alps 'but above all others was preferred Indian Crystal a statement of Pliny borne out by Strabo and Martial"[7].

"Of the Stones produced by oxides of metals, the hard corundums of today (Tamil Kurrandum) formed an important part of Rome's oriental trade".[8]

"The author of Periplus found sapphires at Musiris and Neloynda only whiter evidently at sapphires including the now scarce Indian suppliers from Salem, Malabar, the Cauvery and the upper Godavari were sent".

"Beryls were found not only in Brazil and Saxoney, but also in the Ural and Altar mountains, in Toda hills at Padiyur in Coimbatore".[9]

From the above the importance of Padiyur in Roman trade particularly the rock crystals may be understood. More than Padiyur, Kodumanal abounds in rock crystals and beryls. All the precious and semiprecious stones that played important role with the Romans as mentioned by Warmington are found in this village. The recent finds of Arretine ware, inscribed ware, and other associate finds show, that Kodumanal was frequented by Roman traders and that the village was famous for its jewellery and that the Chera rulers were found of the jewellery of this village.

Thus the three sites Vasavasamudram, Karur and Kodumanal in Tamil Nadu, revealing Roman Contact, add new diamensions to our knowledge of Imperial trade in the beginning of the Christian era.

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